

A BRIEF HISTORY OF LONDON

SOUVENIR OF THE
INTERNATIONAL CONGRESS
OF
CHAMBERS OF COMMERCE
LONDON
1910



With the Compliments of

JOHN ROUGHES WELLCOME & CO.

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1200



LONDON IN THE TIME
FROM A MAP



QUEEN ELIZABETH
ED 1563



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A BRIEF HISTORY OF LONDON

AND ITS

COMMERCIAL DEVELOPMENT

SOUVENIR OF THE

INTERNATIONAL CONGRESS

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BURROUGHS WELLCOME & CO., LONDON

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ACKNOWLEDGMENTS

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INTRODUCTION

When the causes and movements which have made modern civilisation possible are reviewed and appraised at their true value, it will be found that while War has often flung back the tide of human progress and withheld from whole sections of mankind, for long periods, the legitimate fruits of toil, Commerce has been the beneficent patron of the arts and the harbinger of peace.

In effect, the history of civilisation is the history of the interchange of commodities, and the story of the development and growth of London, as a great commercial centre, one of its most significant and interesting chapters.

In dedicating this book to the delegates of the Fourth International Congress of Chambers of Commerce and Industrial Associations, it is felt that their visit to this antient city, which has been the meeting-place of the merchants of the world for so many hundreds of years, is full of good omen and happy augury for the continued amity of nations, linked together as they are by common interests and associated in the friendly rivalry of similar pursuits.

H. S. W.



THE ARMS OF THE CITY OF LONDON

The Arms of the City of London, although of considerable antiquity, have, strangely enough, not yet been registered at Heralds' College, although a movement is now on foot to do so. The shield, which has often been represented incorrectly with a curved or bevelled cross and a dagger, is the most antient part of the Arms, occurring in the City records as early as 1381. The cross should be a plain St. George's Cross with vertical gules indicating red (*rouge*), and the sword is supported upon a silver field. Dragons were not introduced until a much later period—namely, 1633. The weapon upon the shield was at one time thought to be the dagger of Lord Mayor Walworth, but this is quite erroneous; it is the two-edged sword of St. Paul, the patron saint of the City.

A BRIEF HISTORY OF LONDON

AND ITS

COMMERCIAL DEVELOPMENT

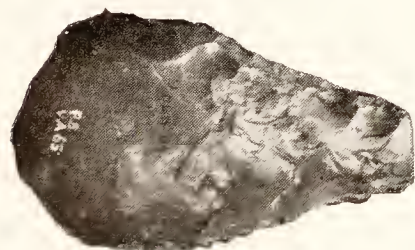
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CHAPTER I

PREHISTORIC AND CELTIC LONDON

THE causes which have led to the commercial rise of London to the remarkable position of eminence which it has so long



Relic of Prehistoric London

Flint implement of the Paleolithic Period found beneath Old Street, City Road

enjoyed, may be divided roughly into two classes, namely, geographical and political. The first has been constant, and the second, fluctuating, but for long periods favourable to the growth and protection of commerce.

In our own day, when we see the greatest natural obstacles presenting no insuperable difficulty

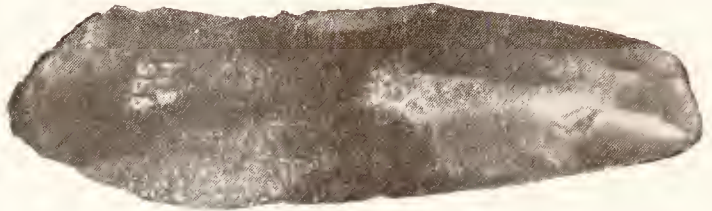
to the skill of the engineer, when tunnels are bored through lofty mountains, and canals constructed to carry

huge ships from one sea to another, the advantages of natural situation in the choice of a site for a



A relic of the
Bronze Age
A sword bronze,
measuring $24\frac{1}{2}$
by 1 inch

town do
not ap-
pear ab-
solutely
impera-
tive.



Relic of Prehistoric London

Yellow chisel flint of the Neolithic period found under
Holborn Hill during excavations in 1870

But in man's early struggles with Nature and his fellows, there were three features which specially called for attention when a new homestead or settlement was to be made. They were water, food, and shelter. This trinity of the elementary necessities had to be placated at all cost, or the township or holding would be brief and tragic in its history. The piece of rising ground which lay between the Fleet River and Walbrook, fronted by the broad waters of the Thames, and protected on the north by the great lake of Moorfields, was one which would naturally commend itself to the eyes of those far-off antient Celtic ancestors of the British race who first roamed through the forests and fished in the streams of the Thames Valley; and here, it may be, more than 2000 years ago, some British chieftain first set up a few wooden huts and fortified the summit of the hill with stakes and palings and rough earthworks. That remarkable phase of prehistoric life seen in lake-dwellings, to which the investigations of Dr. Ferdinand Keller

of Zurich first drew attention, gives an indication of the labour and ingenuity which some very early races of men bestowed in order to surround their habitations with the protection of water.

Remains of these lake-dwellings, supported upon piles driven

into the bed of the lake, have been discovered in Switzerland and many other parts of Europe. Precisely the same



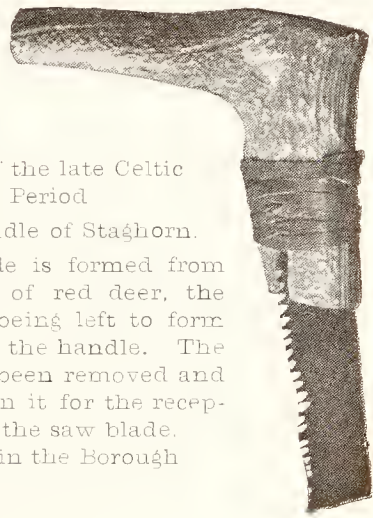
Relic of the early Iron Age
A horse-bit of the late Celtic period,
probably made by Britons before
the Roman invasion

expedient is adopted by semi-civilised tribes in our own time, and Cameron relates that he saw whole villages thus built on piles in Lake Mohyra in Central Africa, the object being to prevent surprise by slave raiders or other hostile bands. Certain

The
lake
dwellers

piles and the remains of kitchen middens, found during the course of excavations near London Wall and Southwark Street, point to the existence of similar buildings in pre-Roman times upon the site of London, and, moreover, the hills which rose among the marshes, and the isles which dotted the estuary of the Thames Valley, presented all the natural advantages which the lake-dwellers were forced to discover or construct; so that, although we may dismiss as pure invention Geoffrey of Monmouth's fabled Troynovant and its mythical founder Brute, the descendant of Æneas, there is yet every probability that some very early British dwellings existed, long before the Roman invasion, on the site of London city.

The repeated discoveries, during the course of excavations into the foundations of London, of pottery and implements of an early Celtic period seem to confirm this view, although they may be the record not of a permanent settlement, but of a temporary sojourn by a nomadic tribe.



Relic of the late Celtic
Period

Saw-handle of Staghorn.

The handle is formed from the antler of red deer, the brow tine being left to form the grip of the handle. The front has been removed and a slit cut in it for the reception of the saw blade.

Found in the Borough

Not only was the physical conformation of the Thames bank attractive to these early settlers, but the geographical position in relation to the chief inhabited parts of the then known world was also singularly favourable to the growth of commerce immediately opportunities for the exchange of commodities presented themselves. Not too distant from Venice and the antient centres of commercial activity along the coasts of the Mediterranean, the landing place on the Thames bank was at the same time accessible to ships from the Baltic and the Northlands, which must pass close by the mouth of the river on their southward journey, and would often be driven by stress of weather to seek shelter in the safe natural harbour which the river afforded.

Nevertheless, no further information or record of this early British London exists, unless it be in the name itself, "Llyn-dun," which, if we accept this Celtic derivation,

Celtic
London



Relic of the Celtic Period. Iron knife with curved blade found near London Wall

means the lake fort; and the adoption of this name, by the Roman conquerors of Britain, seems to indicate that before the Roman invasion some fortified position existed upon the shores of what was then a marshy lake dotted with islets. It had, however, not arrived at anything like the position of a capital city, nor even of a fortified place of conspicuous strength, at the period of the first Roman invasion, for Julius Cæsar does not mention it. The first authentic record of Londinium is found in Tacitus, who informs us that it was already a populous city renowned for the number of its merchants and for its wealth.

It seems most probable that London as a British settlement first rose into importance during the period between the visit of Julius Cæsar to these shores in 51 B.C. and the conquest of Claudius in A.D. 43.

The coming of
the Romans

The rude savages, whom Cæsar describes in his "Commentaries," had begun to feel the impact of a higher civilisation, and the stream of foreign merchants and traders that followed always in the wake of Roman conquest had obtained a footing in the country.

Suetonius, to whom the spade work of the second Roman campaign in Britain had been committed, did not regard London as a strategic point of the first importance, and he abandoned it to the Britons, whereupon Boadicea, the wild warrior Queen of the Iceni, in the brief hour of her triumph, burnt the City and put most of the inhabitants to the sword. This was in A.D. 61, and we may deduce that the City was not yet fortified strongly, and that its inhabitants were mostly foreign merchants, traders and settlers.

This first recorded burning and total destruction of London by Boadicea serves but to emphasise the natural attractiveness of the site, for in spite of so signal a disaster, a fresh population speedily replaced that which had been killed or scattered, and, under the Roman dominion, the City made rapid strides in wealth and importance.

So much for the advantages of geographical situation.

In the following pages we shall endeavour to indicate the outstanding landmarks in the political history of London which affected favourably or adversely the development of its commerce, and to trace the successive tendencies and movements within and without the City which have ministered to its growth.



Relic of the Celtic Period.
An Urn

found under Holborn Viaduct



Relics of the Roman Period. Amphora and drinking vessels

CHAPTER II

THE ROMAN OCCUPATION

Two thousand years ago human civilisation and the Roman Empire might be said to be almost identical, or at any rate coterminous: the mighty genius for war and for statesmanship which actuated that great people was leaving every year some fresh imprint of its dominion upon the face of the then known world. Nor was its influence entirely due to brute force; Roman methods, Roman ideas, Roman culture, were everywhere making themselves felt, and moulding into fresh forms the manners and even the language of the races subdued by Roman arms. It was largely the conquest of mind over matter, and it is remarkable that the intellectual victories of Rome have outlasted all over Europe, by many centuries, its political supremacy, and left an indelible mark upon laws, social institutions and even habits of thought, amongst civilised men.

Roman London
A.D. 43-409

The Roman occupation of London lasted from the successful campaign of Aulus Plautius, in A.D. 43, until the decline of Roman power necessitated the withdrawal of its more distant military outposts in 409. At the beginning of this period a Roman fort or *prætorium* was established on the north side of the river, where Cannon Street Station now stands, but, according to Ptolemy, the main portion of the Roman town itself was, in his time, on the south side, and his statement is borne out

by the fragments of antient buildings which have been unearthed in Southwark. Coins also of the Republic

Relic of the Roman Period.
A Stylus for writing on waxen tablets



Relic of the Roman Period.
A lamp of pale buff ware with lustrous brown glaze ornamented in relief

have been found along the bed of the Thames, a fact which points to the existence of an early wooden bridge. The Romans laid great roads which must have made London the most accessible place in the kingdom, for in the Itinerary of Antoninus Pius we find that they are frequently mentioned. The name of one of these survives in modern London as Watling Street; this was the great western road leading to Bristol and Chester; there were also Ermyrn Street, the northern road to Lincoln and York, and, branching from it eastwards, the Vicinal Way.

Whatever early buildings were erected on the south side, it is clear that the development of the City and fortifications proceeded upon the north in the later period of Roman occupation. A great wall, enclosing the citadel, suburbs and villas, was built, the course of which it has been possible to trace, with considerable precision, by the foundations which have from time to time been discovered (*see Map, page 10*).

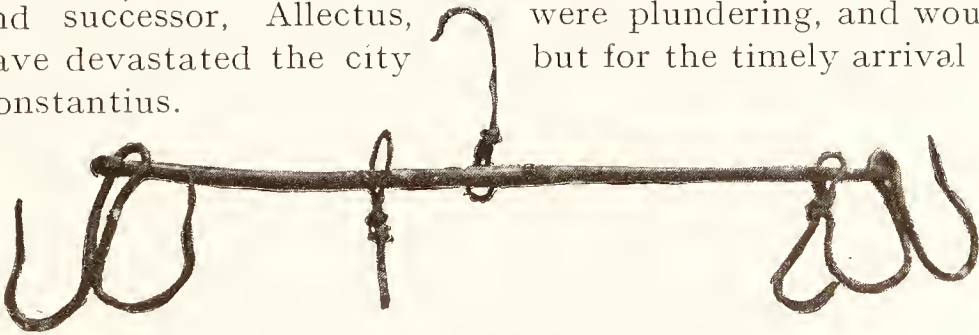
The building
of the Wall

A pretty legend, which, however, lacks confirmation, attributes the building of the wall to the influence of Helena, the mother of the Emperor Constantine, a lady who is said to have been of British birth.

Thus, London, not only connected by roads with the interior and fronting the seaboard of the great tidal river, but also protected by the invincible Roman legions, was a favoured city. Little wonder that it attracted merchants and merchandise

from all parts, and grew into prosperity.

The City was not left entirely undisturbed, however, during this period ; for a brief time the rebel emperor Carausius held sway, and ere long the Frankish soldiers of his murderer and successor, Allectus, were plundering, and would have devastated the city but for the timely arrival of Constantius.



Relic of the Roman Period—Scales

Under Julian, London was the headquarters of Lupicinus in his campaign against the Picts and Scots, and Theodosius,



Relic of the Roman
Period
Unguentarium of
Blue Glass
Height: $2\frac{1}{2}$ inches
Found under Holborn
Viaduct



RELIC OF THE ROMAN PERIOD

Roman Mosaic Pavement composed of red, white, grey and black tesserae. This fine specimen of Roman Mosaic work was found, in 1869, not far from the course of the Walbrook in Bucklersbury.

who visited it later, is said to have repaired the walls and left it in a state of security. Ammianus refers to it by the title of Londinium Augusta.

But the Atlas shoulders which bore the burden of the world were growing weary. At the beginning of the fifth century, Rome, weakened by internal degeneration and the attacks of her enemies, was forced to recall her outposts, and among them the British garrison. The inhabitants of London, all unused as they were to the practice of war, were left unprotected. It was in vain that they appealed, in 446, to the Roman Emperor for aid, and, unable to rely upon themselves, they were foolish enough to purchase the assistance of a warlike tribe of Saxon warriors against their old enemies, the Picts and Scots. Britons invoke Saxon aid The Saxons drove back the marauders, but very soon turned their arms against the Britons themselves, and in A.D. 457, at the battle of Crecgan-Ford (Crayford), slew four thousand of them and drove the remainder of the combatants to seek shelter in London.

The new conquerors had no love for walled cities, yet a little later, when successive invasions had established the rule of the Saxon kings over the greater part of Britain, we find London regarded as the metropolis of the East Saxons.

Sebehrt, the nephew of Ethelbert the powerful king of the Cantii, was made sub-king of London. The first church of St. Paul was built at this time, and it was Sebehrt who, at the instigation of Ethelbert, founded the Abbey of Westminster. In 604, the city became an episcopal See, but Mellitus, the bishop whom Augustine First Bishop of London sent to baptise the East Saxons, was driven out after the death of Sebehrt, and London for a time again relapsed into paganism. Mellitus became Bishop of Canterbury.

Thereafter, for many years, the chronicles are almost silent concerning events within the City, but it may be assumed

that in spite of three disastrous fires, which played havoc among its thatched roofs and wooden houses, London made some substantial progress, for we find that when Egbert became King of the Saxons he frequently took up his residence there, and the national council or witena-gemot was held within its walls.

Nevertheless, Winchester was the capital city of Egbert's original kingdom of Wessex, and, from its position of priority, London had not yet ousted it. It was to Winchester that Egbert came in triumph to receive the homage of the vassals, after the union of the Saxon kingdoms had been effected, and it was there that the easter-gemot was held.

The beginning of London's commercial supremacy over her rivals may, perhaps, be discerned in the decree of King Edgar, a famous lawgiver of the Saxon period, who ordained that "one weight should pass, such as is observed in London and at Winchester."



London Stone

This very antient stone is said to have been placed on the site of Cannon Street, then the centre of the City, by the Romans about 15 B.C. It was moved to its present position, in the wall of St. Swithin's Church in 1798.



Relic of the Anglo-Saxon Period. Ornamental carving on bone

CHAPTER III

UNDER THE SAXON KINGS

But the Saxons were not to be allowed to possess, undisturbed, the kingdom which they had won by the sword. Another race of northmen, as hardy and intrepid as the wild forefathers of the Saxon thane and ceorl, who were now settling into more peaceful pursuits, began to make its appearance. The first bands of Danish invaders came to the shores of England in 783, and not until 1074 was the last Danish invasion driven back. These were dark days for London.



Relic of the
Anglo-Saxon
Period

Spear-head
found in the bed
of the Thames

In 839, there was a great slaughter of the citizens, and in 851 the City was in the hands of the Danes, and so continued until 872, while, north of the Thames, the new invaders were victorious everywhere and were harrying the country in all directions, sometimes making settlements, and sometimes returning laden with booty to their native fastnesses. Under such circumstances, little progress was to be expected; nevertheless, out of the confusion of this unhappy time, there steps one figure which justly claims the affectionate reverence of Englishmen, and especially of Londoners. The titles which courtiers and flatterers bestow upon kings are seldom sanctioned by history, but the name of Alfred the *Great* was well deserved,

Danish
invaders

and his fame has endured the vicissitudes of a thousand years without diminution of its lustre.

Alfred, after inflicting several signal defeats upon the Danes, came to an agreement with them, for the partition of the country, in the Treaty of Wedmore. During the brief truce which followed, he had time to carry out a project which had early attracted his attention, namely that of re-fortifying London, which the Danes had left in ruins. With such prescience and patriotic statesmanship did he guide the affairs of his kingdom of Wessex that all English folk turned to him as their deliverer, and in 886, having rebuilt the wall of London and erected a citadel within it, he left it in the charge of his son-in-law, the Alderman Æthelread.

Alfred's work
for London

It is supposed that Alfred, in repairing the walls, made three new gates, namely Aldersgate, Moorgate and Cripplegate.

The wisdom of thus fortifying the city was soon apparent, for, in 894, the Danes made a very determined attempt upon it, from a fortified base which they had erected at Beamfleote (South Benfleet), in Essex. But, inspired by the new spirit of patriotism which Alfred had instilled, London was now prepared with a very different response from the poor-spirited cry she had sent forth to the Roman Emperor three centuries before.

Joining the section of the army which the king had left behind, the sturdy citizens sallied forth and swept the Danes from their stronghold, captured all their ships, and returned victorious with their prisoners and booty. Alfred, great in courtesy as in war, returned the Danish leader's wife and two sons, who had been captured.

Two years later, an equally determined invasion was planned by the Danes, but they were again repulsed with heavy loss and their ships captured or broken up.

London became in all essentials a free city, and, with the exception of occasional despotic infractions of its antient charters, a free city it has remained for the ten centuries which have elapsed since the great Alfred rode through its streets and viewed the rising turrets of his citadel. It had its folkmote or deliberative assembly, answering to the shire mote of the country organisation, its aldermen, its portreeve and its bishop.

A free city

It was in this kindly Saxon period that the first voluntary associations of citizens for mutual protection, and, to some extent, for social and religious purposes, grew up. The Frith-gild was an organisation based upon the "frank-pledge," a national system of mutual protection which Alfred had ordained, which, though simple, was probably sufficient for the times. It consisted in making a man's neighbours answerable for him to the government. The idea of mutual interdependence once started, soon opened the way for the benefits of co-operation and of sharing common risks and dangers.

The
Frith-gild

The members of the Frith-gild were bound together by solemn oath, and he who was false to his oath or who broke faith with the whole community by some lawless act, as of theft or murder, was banished and might be killed by the first man who met him. The law of the Frith-gild held such a slayer guiltless, and awarded him twelve pence for the judicial act. Such a state of government may seem crude to us, but it shows how a sentiment of justice and recognition of the sanctity of human rights was growing up out of a wild lawless time. If we seek for the foundations of London's prosperity, we shall find it based very largely upon the security of property, which has survived amid all political and dynastic changes for so many centuries, and upon its early familiarity with the idea of co-operative effort for a common purpose, as evinced in its Frith-gilds, trade gilds, and, later on, its companies of merchant adventurers.

Security
of property



ALFRED THE GREAT

The first English ruler to recognise the importance of London. He rebuilt the walls, laid waste by the Danes, and so fortified the city that it was never afterwards taken by assault.

A few significant facts come down to us from the story of Athelstan's reign, in connection with the growing importance of London. For instance, in appointing moneyers or minters, he gave eight to London and six to Winchester, and, he it was, who ordained that the merchant who fared thrice across the high seas at his own cost should thenceforth have the rights and status of a thane. Athelstan built a royal residence in London, and his reign probably marks the highest point of material prosperity during the Saxon period.

Under Ethelred the "redeless," the citizens were repeatedly called upon to pay dearly for the folly and cowardice of their king, to whom, in spite of his inefficiency and even of his crimes, they clung, with obstinate and tenacious loyalty, as "their natural lord." Ethelred bought off the Danes again and again with large sums of money, and this ruinous and pusillanimous policy played into the hands of the enemy. Danegelt, the hateful tax initiated by the weakness of Ethelred to furnish funds required for this purpose, continued till the time of Henry III. Sweyn, the Danish leader, who had conquered the greater part of England, Danegelt was at last admitted as inevitable by the citizens of London, while Ethelred fled to Normandy. Sweyn's triumph was short-lived, however, for he died in the following year, and Ethelred, with the help of his courageous son, Edmund, surnamed the Ironside, disputed the claim of Cnut, Sweyn's son, to the kingdom.

In this, they were assisted by Olaf, King of Norway, and the Saxon dynasty might have been continued, The death of Edmund but for the death of the promising young king, Edmund, which occurred very shortly after that of his father.

Edmund had beaten the Danes in no less than five pitched battles, until, betrayed by the treacherous Alderman of Mercia, he was at last defeated at the battle of Assundun.

A partition of the kingdom had then taken place, and, as a consequence of Edmund's untimely death, Cnut became master of the whole of England, including the city which had so long withstood him.

Cnut proved a great ruler, wise and humane. He held the balance fairly between the mixed races, whose animosities gradually died down in the twenty years of his comparatively peaceful reign, so that, under him, Angle and Saxon and Celt began to be welded into one common nationality of English folk.

The shipping trade of the City had now become a noticeable feature, of such importance that the "lithsmen," or shipowners of London, were summoned to Oxford to take part in the election of Cnut's successor.

Cnut was succeeded by his sons, Harold and Harthacnut, and they, in turn, by Harthacnut's half-brother, Edward the Confessor, chosen by the Witan at London, which was now unmistakably recognised as the Capital City of the kingdom.

The gentle and religious character of the Confessor fitted him but ill for the task of governing a stubborn and half-civilised people, and his own tastes and inclinations led him to favour the more courtly Normans, a policy which caused some jealousy among his own people. His reign is noteworthy for the founding of the new Abbey Church of Westminster (in 1065),

Cnut's
peaceful
reign



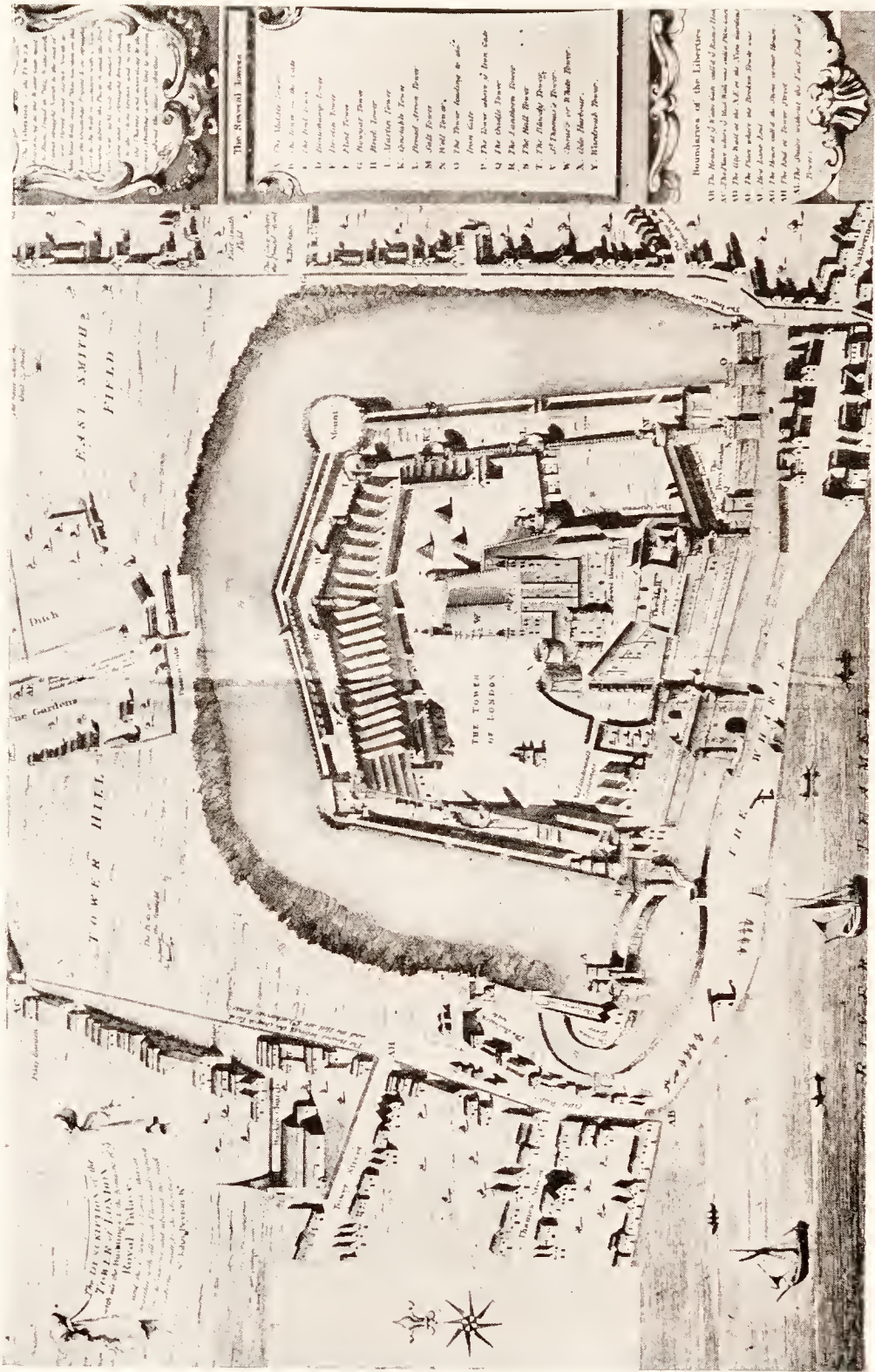
Monumental Stone with Danish Runic Characters. Eleventh century

Edward the
Confessor

and upon his death, Harold, son of the great Earl Godwin, was elected King. It is possible that in a weak moment Edward the Confessor had offered, or had been coerced into offering, the reversion of his crown to William of Normandy, and the bones of the saintly Saxon king were not long laid to rest in his beloved Abbey before William laid claim to the throne and landed, with a great host of followers, at Pevensey, and, on October 14, 1066, he met and defeated the ill-starred Harold at the battle of Senlac.



Relic of the Anglo-Saxon Period. Ornamental carving on bone



THE TOWER OF LONDON

- The Several Towers**
- A The Middle Tower
 - B The Tower on the left
 - C The Tower on the right
 - D The Tower on the left
 - E The Tower on the right
 - F The Tower on the left
 - G The Tower on the right
 - H The Tower on the left
 - I The Tower on the right
 - J The Tower on the left
 - K The Tower on the right
 - L The Tower on the left
 - M The Tower on the right
 - N The Tower on the left
 - O The Tower on the right
 - P The Tower on the left
 - Q The Tower on the right
 - R The Tower on the left
 - S The Tower on the right
 - T The Tower on the left
 - U The Tower on the right
 - V The Tower on the left
 - W The Tower on the right
 - X The Tower on the left
 - Y The Tower on the right

- Boundaries of the Liberties**
- AA The House of St. Martin
 - AB The House of St. Martin
 - AC The House of St. Martin
 - AD The House of St. Martin
 - AE The House of St. Martin
 - AF The House of St. Martin
 - AG The House of St. Martin
 - AH The House of St. Martin
 - AI The House of St. Martin
 - AJ The House of St. Martin
 - AK The House of St. Martin
 - AL The House of St. Martin
 - AM The House of St. Martin
 - AN The House of St. Martin
 - AO The House of St. Martin
 - AP The House of St. Martin
 - AQ The House of St. Martin
 - AR The House of St. Martin
 - AS The House of St. Martin
 - AT The House of St. Martin
 - AU The House of St. Martin
 - AV The House of St. Martin
 - AW The House of St. Martin
 - AX The House of St. Martin
 - AY The House of St. Martin
 - AZ The House of St. Martin

CHAPTER IV

LONDON UNDER THE NORMANS

Harold was slain, and his natural successor, the young Atheling, was hardly more than a boy when Norman William seized the kingdom with the strong hand. Of title or right he had none but that of the sword. No Saxon king had the power to appoint his successor. The principle of election had been affirmed and repeated at each new accession, and the custom ran to choose the strongest and most popular prince of the royal house ; but antient custom, even when sanctioned by immemorial usage, is of little account in comparison with the dictates of a victorious army. As William marched slowly through Kent, Winchester and Canterbury tendered their allegiance. London was the last to hold out against the Conqueror. Having received the submission of the surrounding country, William completely isolated it, and, after one or two skirmishes, the citizens were obliged to come to terms.

London
isolated

Lawless and high-handed as was William's accession, he displayed a statesmanlike moderation in his rule, and was, from the first, favourable to the citizens of London. In the extremely brief and soldierlike message in which he conveyed the first charter of his reign, he frankly expressed a will from which he did not swerve. " William King,"

runs the charter, " greets William Bishop and Gosfreydh, Portreeve, and all the burgesses

William's
first Charter

within London, French and English, friendly, and I do you to wit that I will that ye be all lawworthy that were so in King Edward's day. And I will that every child shall be his father's heir after his father's day, and I will not suffer that any man offer you any wrong. God keep you."

This antient charter, which is still preserved at the Guildhall, indicates that the City government was divided between

two ecclesiastical and civil chiefs ; the portreeve's functions were, as before hinted, similar to those of a shire reeve or sheriff, except that he exercised no judicial functions in criminal trials. That was the business of the Aldermen of the Wards. The burgesses were held to be law-worthy, a privilege which was far from being accorded to all. Landless men, strangers who had not acquired the freedom of the City, unattached units in the social system, were practically ignored by the law, and had no standing in folkmote, ward-mote, or gild.

The iron hand of the Conqueror enforced upon the country a lasting peace, which is always the fruitful mother of commerce. London benefited by this, and by the incursion of Norman merchants who followed in William's

train ; and, fortunately, the City retained her freedom, her separate entity and independence in the midst of the new order. London was not given in demesne : she held her charter direct from the king, and owed no suit or service to any of the great feudatories of the crown, who wielded despotic power over many sections of the country.



Relic of the Norman Period.
Iron Mural Candle Holder, with pricket
in centre and a socket projecting on
one side

It was at a time when, both in England and on the continent of Europe, that method of government, which consisted in the devolution of authority based on the ownership or rather tenancy of land, was crystallising into the form which was destined to be permanent for so many years.

The feudal system took its rise from military occupation, and was essentially allied to martial law. It dated from the “stricken field” upon which the captain of a victorious host gave portions of the conquered territory to his “comites” or followers, in return for their services.

The feudal
system

These great feoffs of the conquering monarch were in turn farmed out to lesser lords, who held the land from their feudatory chiefs, doing some military or ceremonial service in sign of their continued loyalty. Lower down in the scale came the retainers of the barons, the men-at-arms, who in peaceful times became yeomen and farmers; and last of all the peasants, who were little better than serfs.

The municipal constitution of London, although influenced by this surrounding atmosphere of feudalism, seems never to have been completely submerged within it. London remained a separate entity or commune, retaining its direct relations with the crown, and the form, if not the reality, of an elective assembly.

Its aldermen appear to have consisted at first of the landowners of the City; their wards coincided with their private estates, and were in some instances named after them; for some time the office of the aldermanry was hereditary, and the office of mayor, which grew out of that of portreeve, and is first mentioned in the reign of Richard I, was held for life.

Aldermen's
estates
become wards
of the City

After the Norman conquest the king no longer made his permanent residence in the City, but lodged sometimes in the Tower and sometimes at Westminster.

Partly within and partly outside the walls, William I had built his White Tower, which served the double purpose of furnishing an additional defence to the City on the water side, and also of overawing the citizens in case of a rebellion. It was commenced eleven years after William's accession, under the superintendence of Gundulf, a monk from the Abbey of Bec.

The
Tower

Another great work of a different kind, undertaken during William's reign, was the Domesday Book, giving an account of the various sub-divisions of the kingdom and the estates and towns within them; but from this, unfortunately for the historian of those cities, both London and Winchester were omitted, being probably regarded as too important for the method of survey adopted.

In the last year of the Conqueror's reign, a fire destroyed St. Paul's and a large part of the City. A new cathedral church was soon commenced, upon the same site, by Bishop

St. Paul's
burned and
rebuilt

Maurice, and was
built upon arched
vaults and in a style

of much greater magnificence than the old one. The arched vaults at the basement were intended as a protection against fire, and this mode of building had already been adopted in another London church—St. Mary-le-Bow. Of this latter church a strange story is told, illustrating the force of the wind in the great gale of 1091, when the roof was blown off, and huge baulks of timber twenty-six feet long were driven into the earth with such force that scarce four feet of them could be seen above ground.

The rule of William Rufus was despotic, but he continued to preserve that safety of life and property so essential to the progressive commercial prosperity of London.



A Bishop's Crozier of Anglo-Saxon design.

Dating from the eleventh century

The long reign of Henry, which followed, was notable for the ratification of a special charter, by which the citizens of London were thenceforth to hold the County of Middlesex to farm at a rent of £300 a year, and to appoint whom they would to be sheriff over it. This charter was a great step onward upon the path of constitutional liberty, and conveyed a privilege often afterwards menaced but tenaciously held by successive generations of Londoners.

In the civil war between the partisans of Stephen and Matilda, London at first supported Stephen, but, after experiencing a few years of his rule, appeared strongly inclined towards the Empress Maud, or Matilda. This haughty and impetuous lady might have reigned in peace as Queen if she had been content to conciliate the citizens of London, but she flouted their claims and treated their charter with contempt.

Stephen and
Matilda

With the accession of Henry II, an era of good order and prosperity was inaugurated by the confirmation and re-enactment of all the former liberties and charters of the City.

Portions of the old church of St. Bartholomew, in Smithfield, constitute perhaps the most remarkable links between the present time and the early Norman period.

The original monastery was founded by Rahere, a jester or minstrel attached to the court of King Henry. Repenting of his careless life during an illness, he vowed to build a hospital for poor sick folk, and, under the rule of the Austin or Augustine friars, and the special patronage of the King, he founded his monastery and dedicated it to St. Bartholomew. The site chosen was the smooth field or Smithfield, hard by a still more antient parish church, which is said to date from the reign of Edward the Confessor, and on the very site where now stands the chapel of the present Hospital of St. Bartholomew.

The founding
of St.
Bartholomew's

Another citizen who has managed to escape the oblivion of the centuries was FitzStephen, a monk, who wrote a

history of the murdered Archbishop of Canterbury, St. Thomas à Becket (himself a member of a famous London family), and who incidentally gives a most lifelike picture of the City at the commencement of the twelfth century.

“London,” says this earliest topographer, “was accounted in the reign of Henry II to be happy in the wholesomeness of the climate, in the profession of the Christian religion, the strength of its fortresses, the nature of its situation, the honour of its citizens, the chastity of its matrons, and the number of illustrious persons that inhabit it.”

FitzStephen's
description of
London life

Among the attractions of the City, he mentions a great eating-house at Billingsgate, and gives a lively description of the sports and amusements of the youth of the period, such as horse-racing, hunting, skating and even cock-fighting, which last he tells us was practised on Shrove Tuesdays by the boys in the schoolroom. There were in his day 126 parochial churches, including the great cathedral church of St. Paul, with thirteen which belonged to the various conventual establishments.

He mentions the wall with its seven double gates, and tells us that it only extended on three landward sides, having been undermined by the river on the south; and he expatiates enthusiastically upon the beauty of the gardens without the walls.

An accident to a royal travelling equipage, he tells us, hastened the building of a bridge across the Lea. Queen Maud, or Matilda, wife of Henry I, ran some risk at Old Ford on a journey into Essex about 1110. The stone arch or arches gave the new bridge the name of Bow. From Ald Gate the wall of London passed, in FitzStephen's day, without interruption to Bishopsgate, and thence westward to Cripplegate. If

Bridge
building

Moorgate existed it was only as a postern, and Cripplegate was probably little more. Aldersgate came next, and thence the wall led to Newgate, which, at one time, was called Chamberlain's gate, possibly because the sheriff or chamberlain had his prison there. From Newgate, the wall followed the crest of the clay ridge, beside which the Fleet River afforded a roomy entrance to ships.

Cargoes were discharged at the foot of Ludgate Hill, and it was perhaps about this time that a bridge was thrown across the river. There were few houses along the Fleet. The populous suburb which connected London and Westminster ran along the steep banks of Holborn or Holebourne. From Ludgate, by Blackfriars, to the Thames bank there was no other gate, and the wall along the bank had disappeared. His seventh gate was on the south side, and defended the bridge.

The gates
of the City

Much, too, he tells us of the conventual house of St. Martin le Grand, which was already regarded as of ancient foundation. It was, indeed, one of the oldest monasteries in the kingdom, and had from time immemorial possessed the right of sanctuary. William I gave a charter to Ingestre and Girard, in which St. Martin's was specially excepted from ecclesiastical and civil jurisdiction. This right of sanctuary lasted till close upon the time of James I. FitzStephen, who, in spite of his monkish habit, appears to have taken a keen interest in sports, speaks also of skating on a vast lake northward of the city, from which we learn that Moorfields was not yet drained.



Great Seal of William I



HENRY FITZ-ALWYN
First Mayor of London

CHAPTER V

THE MAYORALTY AND THE CROWN

At the accession of Richard I, that knightly and romantic figure in mediæval history, the portreeve, is replaced by a mayor, Henry FitzAlwyn continuing in the office for twenty-five years. The commencement of the new era was marred by a great massacre of the Jews, but it does not appear that the City authorities were responsible for this.

But it was not to be expected that the whole body of citizens would for ever be content with a condition of things which, while it forced them to bear the brunt of the struggle for continued freedom—with successive monarchs and court favourites, conferred all the powers of the internal government of the City upon a privileged few.

Fitz-Osbert, nicknamed the Longbeard, flits across the scene, and, although the prejudiced historian of the day, Fitz-Thedmar, who belonged to the court party, has no good word to say of him, we cannot but recognise in the quaint, sturdy, long-bearded figure a A martyr to liberty doughty champion of popular liberties—a champion, by the by, who paid with his life for his bold advocacy of municipal reform. He was cruelly dragged by the heels through the city and hanged at Smithfield. Richard I is credited with having been favourable to the City, and, indeed, having regard to the heavy ransom to which London so largely contributed, he owed it some gratitude; but the heart of that splendid hero of romance was ever with his wars and crusades and distant adventures of chivalry, and he treated England merely as an estate from which revenue was to be obtained, without concerning himself much about its internal government or progress.

His Justiciar and deputy, Bishop Longchamp, owing to his high-handed exactions, had rendered himself very unpopular,

and when John had the great bell tolled and assembled the citizens in folkmote at their antient meeting place at Paul's Cross, he quickly won their goodwill and had no difficulty in persuading them to do his bidding. The

Bishop haughty bishop,
Longchamp who had taken
refuge in the Tower, was
forced to fly the country.
Thereafter the citizens were
to learn more of King John,
and the first few years of his
reign were marked by a series
of charters conferring com-
paratively trivial benefits
upon the City, but purchased,
it is to be presumed, by heavy
payments to the crown.



Paul's Cross

An antient meeting place of London
citizens

It was now the turn of aldermen or barons of the city, as they were sometimes called, to justify their existence and to do their part in establishing for the nation and for London a truly magnificent bulwark against future tyranny. Geoffrey FitzPiers, who brought the old charter of Henry I before the historic assembly, which was the germ of future Parliaments, was a citizen of London, and by some has been held to have been a descendant of that Gosfrith the Portreeve mentioned in the Conqueror's Charter. The first great meeting of the Barons was held at St. Paul's, and it was there that Stephen Langton spoke to them of the antient liberties of England in hot words which fell like sparks upon tinder.

London made common cause with the Barons, threw open the gates of the city, and on May 12, headed by Robert

Fitz-Walter, the hereditary standard-bearer, joined the Archbishop's forces, and, at Runnymede, drew from the reluctant King, the solemn compact which was to be the basis of the British Constitution, the Magna Charta of England's liberties.

The reign of Henry III was marked by a prolonged and bitter struggle between the City and the sovereign, in which, it must be admitted, there were faults upon both sides. Henry displayed unkingly weakness, vacillation and bad faith. He did not keep his word, and that is a fault the English people have ever thought intolerable in a King.

On the other hand, the conduct of the Londoners, who drove the Queen's barge back to the Tower from London Bridge with sticks and stones, was certainly inexcusable, and served to aggravate the strained relations already existing. But it was little wonder that the citizens were driven to exasperation under the burdens laid upon them. Pope Gregory had sent Italian usurers to England to lend money to convents, communities and private persons who were not able to pay down the tenths which he demanded, and these Lombard merchants had offices in the London street which still bears their name. Owing to extravagance and mismanagement, the King was in constant straits for money, and illegal imposts, fines and talliages were constantly exacted, and, on one occasion, the money and jewels, deposited by the citizens in the Temple for safe custody, were seized and carried off by the King's son.

An unfortunate incident

Henry III and Eleanor of Provence, his French Queen, had many foreign favourites upon whom they lavished gifts of high offices, notably Hugh le Despenser, who was made Justiciar of all England; thus the King's despotic rule raised up powerful opposition amongst the Barons. Simon de Montfort took up arms against the King, and the city sided with him.

Simon de Montfort

Barons and people fought side by side for what was felt to be the common cause of national liberty, and at first they were successful.

In 1258, after the "Mad Parliament" of Oxford, the Tower of London was committed to the Barons' keeping, who were to appoint their own Justiciar. But the citizens were soon displeased with the high-handed conduct of Hugh Bigod, the Justiciar appointed, and at the next move upon the chess-board of King and Barons, we find them welcoming Henry and shutting outside their gates the Earl of Leicester and his followers. Meantime, while these stirring events, which belong rather to the history of England than to that of London, were passing, the Commons of the City were engaged in a similar struggle to remould the antient oligarchic constitution of the municipality.

The craft guilds were rising into prominence and demanding from the more wealthy and privileged trade guilds a share in the government of the City, and they found vigorous champions of their cause in two famous Mayors of this period, Thomas Fitz-Thomas and Walter Hervey.

It was Thomas FitzThomas who, when Henry came to St. Paul's during a brief truce to receive the formal homage of Barons and citizens, astonished the great assembly by qualifying his oath of fealty with these words: "My Lord," said he in a loud voice that all might hear, "so long as you are willing to be to us a good King and lord, we will be to you faithful and duteous."

These words, blunt and unseasonable as they may appear on a ceremonial occasion, were justified by repeated acts of tyranny in the past, but they were no doubt deeply resented by Henry. When, later on, a turn of affairs gave him a fresh lease of power, he did not fail to take his revenge. FitzThomas, lured to Windsor under promise of safe

conduct, was never heard of again, and the City he loved so well was shorn of her antient liberties and placed under the government of a custos or warden appointed by the King, instead of its mayor elected by the citizens, over sixty of whom, partisans of the Earl of Leicester, were driven forth from their houses and had their property confiscated. A fine of 20,000 marks was taken up from the City, and the bridge handed over to the keeping of Queen Eleanor. When at last, through the intervention of "Sir Edward," as he was then called, afterwards King Edward I, the mayoralty was restored, the choice fell upon John Adrian, and later, as Henry III lay dying, upon Walter Hervey.

Walter Hervey was a very notable mayor, who accomplished a great work in the development of the constitution of the City government, that constitution which was to last unaltered in all essential respects Walter Hervey for 600 years. He granted charters to a number of craft gilds and constituted himself the champion and representative of the Commons of the City as against the Aldermen, whose hereditary and aristocratic character at this point begins to disappear. Henceforth they are elected by the Freemen of the wards.



Great Seal of Edward I



SIR RICHARD WHITTINGTON
A famous and munificent Lord Mayor of London

CHAPTER VI

THE GROWTH OF TRADING COMMUNITIES

One of the most interesting chapters in what may be termed the Romance of Commerce is to be found in the story of the Hanseatic League.

This very remarkable organisation had its origin in some of the German towns about the Baltic, notably Lubeck, which remains to this day a Hanse town, and was formed for mutual protection against pirates and other enemies. It took its rise about the middle of the twelfth century, and, at the zenith of its power, had no less than sixty-six cities and forty-four confederate bodies attached to it. The Hanseatic League became a great political force during the Middle Ages. It levied troops, had a fleet of battleships, made war and peace like an independent state, and, in 1370, extracted important privileges from the King of Denmark at the Treaty of Shalzburg. To the Hanse merchants of London, Henry III assigned special privileges in 1259, and, for a time, almost the whole export trade of the country appears to have been in their hands.

The Hanse
merchants

And their
privileges

German merchants had visited the Thames side from a very early period. They were known as Easterlings, and in such respect was their credit and merchandise held that the term "sterling" (derived from Easterling) came to mean good money or something of standard monetary value. In London the Hanse merchants never acquired that predominant influence which they attained in Hamburg, Bremen and many other German cities; nevertheless, they played an important part in the development of London commerce, and influenced also to some extent her municipal institutions. They had their Gildalda Theutonicorum, and, later, a house called the Steelyard, where, under conditions of almost monastic regulation, they carried on the business of export

merchants. The Hanse merchants continued to have special privileges up to the time of Queen Elizabeth, when, having incurred the jealousy and dislike of their fellow citizens, they were expelled. The head of their organisation was called an Alderman, but we are not to assume that he took the position or exercised the functions of an Alderman of a Ward, since this very antient title of honour was not confined to the representatives of Wards till a later period.

The Steelyard was close to the mouth of Walbrook, and the members were charged with the maintenance of Bishopsgate, but, beyond that, they do not appear to have taken any very important part in the public business of the city.

The idea of association, of life in a community, was intensely attractive to the men of the Middle Ages, and not to the weaklings or cowardly only, but to all whose desires leaned towards religion, culture, luxury or learning.

The Church stimulated this preference by its teaching and practice, and the great religious houses, whatever their defects, at least served to keep alive art and literature, which, save in the palaces of a few kings and nobles, had no other home. Amid the rough brutality of the age and in the general *mêlée* of conflicting and powerful interests, it was impossible for the individual to stand alone. Nobles, soldiers, and priests were banded together for mutual protection, and merchants and handicraftsmen were forced to follow suit.

Justice and freedom and equity were not, and are not, natural products, they are the gifts of organised society,

the hard-won trophies of long years of effort and struggle, and, in looking back from the modern standpoint, it is perceived with what difficulty they have been attained, and what an apparently superhuman task it was to win them one by one out of the chaos of violence, rapine and private war which characterised the dark ages.

Historians are much concerned with battles and conquests and military exploits, with princely alliances and changes of dynasty, and all the stirring and picturesque scenes in court and camp, which lend so much of colour and romance to their pages, but if we would see the actual foundations of our modern society and trace to their origin the hidden forces which have really been most potent in forwarding the progress of civilisation, we must go, not to Agincourt or Cressy, or the Field of the Cloth of Gold, but to the plain London merchants, craftsmen and burgesses who first demonstrated the possibilities of an orderly and well-organised community within a free English city.

How much the citizens of London accomplished in this direction may be gauged by the fact that other towns in applying for royal charters almost invariably referred, as their example, to the constitution and liberties of London, and asked for similar privileges. In the process of development which fixed and crystallised the government of London into the form it still retains, the guilds played an important part.

London's
charters
an example

Various guilds, some religious or social and others mercantile, were comprised in the town gild or gild of the city, which up to the time of Edward I exercised a predominant influence over the government of London. The Knighten gild had existed from very early times and had a remarkable history. It possessed a soke or liberty outside Aldgate, and after Maud, the good queen of Henry I, had established and endowed the priory of Aldgate, fifteen members of the Knighten gild, including the first Mayor of London, Henry FitzAlwyn, desired to enter that religious house. They carried out their purpose, became canons of the Augustinian order, and actually endowed the priory with the soke and aldermanry which was vested in their gild. The result was that for many years the prior of Aldgate was *ex officio* an alderman of the city. The ward he represented, Portsoken, is still in existence, although the

The Priory
of Aldgate

ecclesiastical connection has long since been severed, and the priory itself has disappeared.

The saddlers' and the weavers' gilds were two of the most antient and powerful.

The weavers had a charter from Henry I, and became so rich and influential that they frequently excited the envy of other corporations, including that of the City itself. This important gild was at last broken up, either by royal authority or its own internal dissensions, but the several sections of which it was composed reappear as the drapers or pannarii, the tailors or cissores, afterwards the merchant taylors, the clothworkers or shermen, and the fullers.

The great service which Walter Hervey rendered was the encouragement of the craft gilds, to which, on his own responsibility he gave, during his mayoralty, numerous charters.

It is true these charters were afterwards revoked and the gilds dubbed "adulterine" by the reactionary party, but they had been endued with vigorous life, and, surviving fines and the frowns of authority, they grew into powerful organisations with great influence both upon the trades they represented and the government of the City itself.

Hervey was succeeded by Waleys and Rokesley, who both belonged to the aristocratic mercantile party, and strongly objected to the incorporation of the new craft gilds. They were none the less stout upholders of the antient liberties of the City, and when Edward I made the innovation of sending one of his newly-appointed Justices in Eyre to hear pleas at the Tower, Gregory Rokesley doffed his mayoral robes and appeared as a private citizen before the court. Upon the judge demanding his reason for this strange behaviour, the Mayor replied that the City of London was not bound to send to the Tower to hold inquests, nor was it bound to make appearance for judgments beyond its own liberties.

These were bold words to the representative of the stern and masterful King who has been called the greatest of the

Plantagenets, and although perfectly true, they gave great offence to the judge.

Under the specious plea that the City had been found to be without a mayor, it was taken into the King's hands and governed for the next twelve years by means of a warden.

Sir Ralph de Sandwych was the first warden appointed, and, although on constitutional grounds, the interruption in the continuity of the mayoral office was to be regretted, yet the rule of the warden worked well. He merely acted as permanent mayor and, without infringing the antient liberties of the citizens, introduced a new element of military order into the city and its wards.

The City was divided into twenty-four wards, each one of which was to be represented by an alderman elected by its freemen. The exceptions were Portsoken, of which, as already stated, the prior of Aldgate The division into wards was *ex officio* alderman, and Farringdon, which was a survival of the old hereditary and manorial system, in that its alderman was the owner of the land or a large portion of the land of the ward. William de Farndon, a very wealthy goldsmith, had bought the estate of Farringdon, and, for eighty years, according to the City records, a member of his family was returned as alderman for that ward.

It is during the reign of Edward I also that the first mention of livery companies occurs. John le Breton succeeded Sir Ralph de Sandwych as warden, and at last, in 1288, when Wallace was harrying the northern The mayoralty restored frontier and the King was anxious to raise money for his Scottish campaign, he gave back to the citizens their mayor on payment of a fine of 23,000 marks.

The reign of Edward II was marked by riot and misrule in the City, but, on his deposition, and the accession of the young king, Edward III, who commenced to reign at the age of fourteen, a fresh charter was granted, and the privileges of the citizens considerably enlarged.



SIR WILLIAM WALWORTH
Lord Mayor of London

CHAPTER VII

IN THE DAYS OF CHAUCER

Edward III, the boy king, and his girl wife, Phillippa of Hainault, were warmly welcomed by the Londoners, who loaded the youthful couple with gifts and held jousts and festivals in their honour.

A commercial treaty with Flanders, which was one of the results of this alliance, was beneficial to the trade of the City.

During this long and splendid reign, many of the livery companies of London, as we now know them, came into being. The precise relation which they bore to the older gilds is not quite clear, The livery companies but they soon attained considerable power in the regulation of their respective trades.

The Goldsmiths' Company undertook the weighing and assaying of the precious metals, the Tailors inspected the cloth fair at Smithfield, and the Vintners tasted wines and estimated their value. The companies also regulated, very strictly, the conditions of apprenticeship, and built for themselves fine halls for their gild meetings and assemblies.

The increasing wealth and importance of the mercantile classes was reflected in the added dignity of the mayor, who was specially granted the privilege of having a silver mace carried before him and from henceforth was usually styled the Lord Mayor.

Londoners of the latter half of the fourteenth century are limned out for us in their very habits, as they lived, by the quaint and vivacious lines of Geoffrey Chaucer, The pen pictures of Geoffrey Chaucer the father of English Poetry. He gives us a lifelike and not uncheerful picture of knights and friars, fair ladies and gallant soldiers, the scrivener, the courtier, the pale clerk of Oxenford, and the garrulous wife

of Bath, as they start from the Tabard Inn in Southwark upon their pilgrimage to the shrine of St. Thomas at Canterbury. But beneath the gay surface of London society, which he describes, there was doubtless an underworld of poverty and oppression which gave forth from time to time a cry of menace and revolt.

Unfortunately, the great body of the people had but little share in the increased prosperity of London merchants, and of the official and upper classes. The long wearisome wars with France had taken a ceaseless toll of life and effort, and the vast sums expended by the King, Edward III, had drained the national resources.

The Peasants' Rising of 1381 marked the boiling-point of the widespread unrest of the time. Wat Tyler is said to have resented an insult to his daughter, by braining a rascally tax gatherer in the streets of Dartford. And the incident, which is well in keeping with the character of this brave, high-hearted, but misguided demagogue, was enough to set a spark to the smouldering tinder of popular discontent.

Tyler marched at the head of a great mob of reckless followers to London gates, where, through the connivance of certain citizens, they obtained an entrance. They sacked and burned the Savoy Palace, besieged the Temple and the house of the Knights Hospitallers at Clerkenwell, and for three days ran riot within the city.

At last Walworth, the Mayor, and the young King met Wat Tyler and his followers at Smithfield, to discuss their grievances. During the course of the altercation Walworth struck Tyler with his dagger, and King Richard II, a mere boy at the time, rode boldly in among the rebel host crying, "Tyler was a traitor; I will be your King." The brave words took the humour of the crowd as brave words will.

The Lord Mayor's blow had gone shrewdly home, and the leader of the Peasants' Revolt was carried a dying man into the Hospital of Bartholomew.

The cool-headed, law-abiding citizens of London were not likely to make common cause with so mad an enterprise as that of Wat Tyler, yet his effort was not all in vain. It dug the grave of serfdom and villenage, which henceforth disappears from the annals of England, and it served to demonstrate that profound political truth which lies behind all constitutions and all laws, namely, that in the last resort a misgoverned people has the inalienable right to rebel—if it chooses to take the risk!

The outcome
of the
Peasants'
Revolt

Richard II kept but indifferent faith with the City. Contrary to both charters and antient usage, he caused his Constable of the Tower to take toll of every boat and ship which passed up the Thames.

So great had become the power of the liverymen that in (1375) Richard II's reign, they had got the election of the Common Council and Aldermen completely into their hands, and had disfranchised those Wards and their inhabitants who were not affiliated to one of the Companies.

The tyranny
of the
liverymen

This state of things naturally aroused a good deal of dissatisfaction, and in 1385 there was a revolt. John Constantyn, a brave shoemaker, who voiced the popular feeling against the tyrannical usurpations of the Companies, was punished with death for his temerity, and Sir Nicholas Brember, who authorised this judicial murder, sought the King's sanction for the act. But Brember, who was deep in the political plots of Suffolk and Tresilian, had succeeded in making himself odious and his King unpopular, and when Gloucester's army appeared at Clerkenwell he fled from the City. He was shortly afterwards captured, and on February 20, 1388, executed on

Sir Nicholas
Brember

Tyburn Hill, being the only Lord Mayor of London to suffer such a fate. These melancholy events were followed by the repetition of the old extortions and exactions which had characterised the reign of Henry III. The boy King whose gallant conduct on the occasion of Wat Tyler's rebellion had won the hearts of the citizens had not learned in manhood the lesson which the past so clearly indicated concerning the value of London's favour to an English monarch.

In 1399, Henry, the son of John of Gaunt, seized the crown and was warmly acclaimed by the citizens. Bishop Braybrook, a notable Bishop of London and champion of her rights, was largely instrumental in the deposition of Richard and the coronation of his Lancastrian successor.

Richard Whittington, whose name has been immortalised in many a childish song and nursery story, became Mayor for the first time in the days of Richard II, having been arbitrarily appointed by the King without the formality of an election upon the death, during his year of office, of Adam Bamme.

Lord Mayor Whittington made many munificent gifts to the City and to the Church. He founded a library, built almshouses, and left money to rebuild the gate and prison of Newgate, besides forgiving the King upon one occasion a debt of no less than £60,000.

He also restored the buildings of St. Bartholomew's Hospital, and contributed handsomely to the embellishment of the new Guildhall. Whittington's almshouses, originally built in the City, now stand on Highgate Hill, near the supposed site of the stone which commemorated the legend of his return to London after leaving it in despair.



Great Seal of Richard II



Deed relating to the purchase of a house in Blackfriars by William Shakespeare, dated March 10, 1612 or 1613, and bearing the autograph signature of the poet.

CHAPTER VIII

YORK, LANCASTER AND TUDOR

The life and manners of Londoners in the fifteenth century have been vividly presented in the historical plays of the great national poet of England, William Shakespeare, to whom the story of the martial achievements of Henry V and the long struggle of the Wars of the Roses must have come down as a legend of the last century, a picture of the immediate past, replete with abundant details preserved by oral tradition, and to which his genius has given a deathless charm.

The Wars
of the Roses

In Shakespeare's pages we see Falstaff and his boon companions roystering at their tavern in Eastcheap; we catch sight of the gay cavalcade of princes, nobles and bishops along the thronged streets about old St. Paul's as the gallant host rides forth to take ship for the wars in France.

He takes us to the gloomy vaults of the Tower, where the two young princes of York are being done to death by the connivance of the hunched-back Duke of Gloucester, or anon to see Jack Cade and his rabblement of rough Kentish men swaggering in the streets of Southwark.

The plots and counterplots of that terrible family feud between the houses of York and Lancaster, which began with the plucking of rose favours, white and red, in the Temple Gardens, and which, during thirty long years, swept hither and thither over the countryside from St. Albans to Bloreheath, from Towton to Tewkesbury and Barnet, till its final scene in the defeat and death of Richard III at Bosworth Field, belong rather to the history of England than of London.

That the City felt perforce some interruption to the rising tide of its commercial prosperity through this fratricidal war cannot be doubted, but the war was essentially one between the nobles and their retainers of either faction. Twelve princes of the blood, 200 nobles, and 100,000 men-at-arms were slain in the conflict. But the peasants and traders were but little concerned in the dispute, and they were only incidentally and occasionally drawn into the quarrel.

Far more really momentous is the apparently insignificant entry in the City records that Robert Large the mercer, a contemporary of Whittington, and himself Lord Mayor in 1439-40, had bound to him in the year 1438 a certain apprentice by name William Caxton. Many years later, having acquired at Bruges, doubtless from the famous Colard Mansion, the secret of the new art of printing, Caxton set up his first press in the Almonry of Westminster in 1476.

York and
Lancaster

The discovery
of printing

One of his earliest associates, Wynken de Worde, settled in Fleet Street, that famous thoroughfare which has been the birthplace of so many newspaper enterprises and the haunt and home of so many distinguished men of letters. Here Wynken de Worde set up a new press, considerably improved upon Caxton's wooden types, and printed during his long lifetime no less than 408 books.

The introduction of printing was destined to accomplish a greater revolution in the story of human development than all the wars and sieges and changes of dynasty which had occurred in Europe for ten centuries, and incidentally it added to the city of London a great industry and a potent instrument of commerce which has ever since found its chief centre within her borders.

The
printing press

The coming of the first of the Tudors to the throne, which had been the cause and occasion of such a bitter and long-drawn-out struggle, was hailed with much rejoicing, and Henry of Richmond gave the citizens once more the benefits of peace, order and a settled government.

By this time the City had grown very crowded within its antient walls, and suburbs were springing up in all directions in spite of the orders which were occasionally promulgated against the building of new houses.

A terrible epidemic known as the "Sweating Sickness" afflicted the people. In 1485 no less than four Mayors sat in the civic chair, three of their number having successively fallen victims to the plague.

Henry's inordinate love of money led him to impose upon the citizens numerous illegal fines, and his agents, Empson and Dudley, have attained, as unjust tax-gatherers, a bad eminence which keeps their names in remembrance to this day. These harpies occupied two houses in Walbrook, and they were accustomed to meet in the garden of the Earl of Oxford's house to concoct their nefarious schemes for holding citizens to ransom by the imposition of fines for more or less imaginary offences.

Sir William Capel was thus attacked for alleged neglect during his year of mayoralty and fined £2000. On his refusing to pay the unjust impost he was imprisoned in the Tower, and there remained till the accession of Henry VIII, when the citizens showed their appreciation of his spirited protest by re-electing him as Mayor.

In 1503, the civic authorities were deprived by statute of control over the livery companies, and in the same year the tailors of London obtained a special charter and asserted their independence of the government of the Corporation. The most important livery companies at this period were the Tailors, or Merchant Taylors as they began to be called, the Mercers, Grocers, Fishmongers, and Goldsmiths.

Power
of the
livery
companies

A redeeming feature in the character of Henry VII was his love of scholarship and of fine buildings, and it is from this reign that several great London schools date their commencement.

The
Renaissance of
learning



DEAN COLET
The founder of St. Paul's School

The new learning was beginning to make headway under the fostering care of a group of enlightened thinkers, of whom London is justly proud. Erasmus, Archbishop Warham, the saintly Dean Colet and Sir Thomas More were among the number of those who actively encouraged the renaissance of classical and scientific studies. Dean Colet devoted his own private fortune to the foundation of St. Paul's

School, and entrusted its future management to the Mercers' Company. The rising wealth of the great City merchants was equalled by their public spirit, and their desire to benefit their native towns led them to leave lands and

money for educational endowments in various provincial centres. Thus London fed the intellectual growth of Wolverhampton, Reading, Macclesfield and many another country town.

A notable instance of the City's contribution to national education is to be seen in the gift of Sir William Harper and Dame Alice his wife, who left the rent of certain fields near Lincoln's Inn for the education of poor boys in the town of Bedford. The Bedford Grammar School, the Bedford Modern School and other scholastic establishments in the vicinity are now largely supported by this Trust.

Henry VIII, in spite of the cruelty and indifference to human life which he displayed in the later portion of his reign, was never unpopular in the City. His suppression of the monasteries jumped with the popular wishes. London had long been over-

The
dissolution of
the Monastic
Orders



SIR THOMAS MORE
Sheriff of London, Speaker of the House
of Commons and finally Lord
Chancellor.
Was beheaded for his refusal to
recognise Henry VIII as head
of the Church

of the Blackfriars, Carmelites, and other orders had been enriched by the piety and superstition of many successive generations, until their property and numbers had grown out of all proportion to the religious needs of the community and weighed upon the City like a huge incubus. Mass priests swarmed about the cathedral of St. Paul and the numerous altars of the churches, and by their idle and often dissolute lives brought contempt upon religion. Moreover, the teachings of the great Wyclif had

nowhere secured a readier response than among the sturdy, independent and thoughtful citizens of London.

The attempts to crush out Lollardry, as the leaning towards the new or reformed doctrines was called, by violence had commenced as far back as Henry IV's reign, when William Sawtree, the first Protestant martyr, the first of a long heroic line of English martyrs, was burnt at the stake in Smithfield rather than relinquish his opinions.

The monks and friars had but few champions, and it was only after the monastic houses had been closed that the City Fathers realised that the work of tending the sick and the poor was now to fall upon them. The King, with Wolsey and Cromwell to help him, had robbed the antient dispensers of charity, and with cynical indifference left the legitimate objects of their care without help or protection.

It was after the fall and death of the great Cardinal, and while Thomas Cromwell—*malleus monachorum*, or hammer of the monks, as he was called—was Chancellor, that the most destructive and ruthless part of this work of demolition was carried out.

The hospital of St. Thomas of Acon, the priory and hospital of St. Bartholomew, that of St. Thomas in Southwark, and of St. Mary without Bishopsgate, known as St. Mary of Bethlem or Bedlam, were some of the religious houses whose beneficent work was interrupted in this way.

Beneficent work
of the monas-
teries carried on
by the City

Sir Richard Gresham (father of the still more famous Sir Thomas Gresham) vigorously took up the cause of the hospitals during his Mayoralty, and succeeded in winning some tardy concessions from the King. Those who thus dealt with the property of the Church were not likely to be more scrupulous in regard to the customs and rights of London traders and merchants, and we accordingly find the City involved in constant disputes with Henry and his ministers concerning the great beam where goods and merchandise were weighed, the measuring of linen cloth and other commodities, the office and duties of the water bailiff, and such like matters.

CHAPTER IX

A CENTURY OF GROWTH AND CHANGE

Step by step the City advanced in independence, influence and wealth. The records which come down to us clearly indicate the growing volume of its commerce. Wool was still the principal export, and a great source of profit to farmers, merchants and weavers; the King himself, like Edward IV before him, traded in this important English product.

The privilege of dealing in the staple commodities was one which was restricted to certain privileged merchants, and had been regulated by successive statutes. The chief staples on which customs were levied were wool, skins, leather, tin, cloth, butter and cheese.

The splendid pageants and ceremonials of Henry VIII's reign indicate the growth of luxury which kept pace with advancing wealth. The City was now paved and lighted and adorned with many fine halls, public buildings and private houses built of stone.

Beneath the crumbling husk of the feudal system, of monarchical absolutism and mediæval ignorance, strange new forces were at work fermenting and germinating in the London of the sixteenth century, and beginning to prepare the way for the great changes which were to usher in the modern epoch of invention, of progress, and of material prosperity.

New
forces at
work

The discovery of America, the multiplication of printed books, the growth of the new learning and the reformation of the Church were among the causes and the symptoms of this movement, and while Henry was despoiling the monasteries, and his Vicar-General was pulling down monuments and defacing windows in the antient churches of the City, the minds of thoughtful men were turning from the futile discussions of

In the
sixteenth
century



SIR ROWLAND HILL
The first Protestant Lord Mayor of London

the scholiasts and the polemics of religious fanaticism towards other and more practical problems.

Three years after Henry's death there was born at York House in the Strand, Francis Bacon, who was destined to render articulate and coherent the revolt against the old Aristotelian philosophy, with its appeal to authority and tradition, its fanciful and unreal data and useless metaphysical abstractions, and to lay broad and deep on the basis of experiment and observation the foundations of the new philosophy of scientific induction and of material utility.

The
Baconian
philosophy

While this extraordinary genius, who has been described as the "wisest, brightest and meanest of mankind," was growing to manhood, his native city was the scene of many an orgy of bigoted fanaticism and religious cruelty.

The gentle and scholarly boy who succeeded Henry on the throne had directed such influence as he possessed, during his all too brief reign, towards the encouragement of learning, the establishment of schools and hospitals and the settlement of Church questions upon reformed but tolerant lines.

But the dominant voice in the State had been that of the Duke of Somerset and later of the Earl of Warwick. The former laid hands upon a fine collection of books which had been left by Whittington and others to the City, and placed them, ostensibly as a loan, in the palatial house he was building upon the Strand. When, after his disgrace, the Earl of Warwick, afterwards Duke of Northumberland, became the leading spirit of the boy king's Council, he signalled his government by an attempt to fix the price of commodities while at the same time debasing the coinage. This farcical edict was at once and successfully resisted by the merchants and traders of London, and is chiefly interesting as illustrating the profound ignorance of economic laws which characterised this statesman, and also the way in which the City came

Mediæval
economics

to exercise a new kind of power in national government, by demonstrating that its advice and assent in matters relating to finance was necessary if the law was to be wisely devised and efficiently carried out.

Before his untimely death, Edward VI gave the antient royal palace of Bridewell to the municipality, and a quantity of furniture from the Savoy for the maintenance of the poor, and he also granted a charter of incorporation constituting the Mayor, aldermen and commonalty, governors of Christ's Hospital, St. Bartholomew's, and St. Thomas's.

The boy
King

After the brief tragic interlude of Lady Jane Grey's nine days' Royalty, Mary, the daughter of the much-wronged Catherine of Arragon, ascended the throne. The Duke of Northumberland had rendered himself extremely unpopular, and the ill-timed rebellion of Sir Thomas Wyatt served but to seal the fate of the hapless girl who had been dragged from her books and her dreams into the maelstrom of political strife. On February 12, 1554, Lady Jane Grey was beheaded in the Tower of London, that grim citadel which had witnessed so many political crimes and harboured within its walls so many of her ancestors, but none so innocent or so unfortunate as herself.

Lady Jane
Grey's pitiful
fate

Mary's determination to reinstate the older forms of religion at all costs, and her Spanish marriage, were viewed with little favour in London, which now became the scene of frequent burnings of heretics. These horrible orgies at length shocked and revolted all but the most bigoted fanatics, and produced a reaction in favour of the new doctrines.

John Rogers, Vicar of St. Sepulchre's, was one of the first to suffer at Smithfield, only a stone's-throw from his church, the terrible penalty of faithful adherence to what he conceived to be the truth, while at Oxford the aged Hugh Latimer, Bishop Ridley, and Cranmer, despite his wavering, were soon to follow his example.

It was little wonder that after this gloomy period few tears were shed at Mary's decease, and her successor, the Princess Elizabeth, was welcomed with every manifestation of delight.

The new Queen took up her abode for a time at the Charterhouse, and from thence removed to the Tower. By her moderation and clemency in matters of religion, and her vigorous encouragement of commerce, Elizabeth rapidly became and continued to the end of her long reign extremely popular with the citizens of London.

Sir Thomas Gresham, son of a famous Lord Mayor, is a notable figure in the commercial and municipal history of the time. He was "King's merchant," and in this capacity, which was partly diplomatic, partly that of a financial agent, he made frequent journeys to Antwerp and Brussels. Impressed with the advantages which the Antwerp merchants derived from their Bourse, he determined to found a similar institution in London, and he accordingly devoted a portion of his great wealth to building an Exchange.

A Bourse
for London

The trade with Flanders, which had been an important one for many years, was threatened with interruption by reason of the Duchess of Parma's action in excluding English wool. To this Elizabeth replied by threatening to close English ports to Flemish traders. The low countries had been ravaged by a long and barbarous war, during which the fierce Duke of Alva had sought to subdue the stubborn Hollanders to the policy of Spain, and in consequence of the persecution in the Netherlands and in France, many Huguenots and Flemings sought refuge in London and brought their craftsmanship with them.

The coming
of the
Huguenots

Meantime, the fixed coinage, the practice which Gresham had advised and initiated of raising loans in London instead of abroad, and the clever diplomacy of the Queen, all tended to stimulate the trade of the City.



SIR THOMAS GRESHAM
Founder of the Royal Exchange

One of the most popular features of the new Royal Exchange was that of Insurance. This was not an entirely new idea, having been practised by the Italian money-lenders of Lombard Street, but it was now placed upon a more regular footing, and disputes between assurer and assured settled by arbitrators appointed by the Court of Aldermen. The decline of Antwerp under the cruel military despotism of Alva placed London definitely in the front rank as the greatest commercial centre in Europe, a position consistently maintained to the present day.

Insurance
at the Royal
Exchange

After the assassination of the brave and patriotic Prince William of Orange, whose cause the Londoners and the Queen had long secretly aided, war with Spain became every day more imminent and inevitable. When the news came that a great Spanish Armada, which was to crush England and re-establish Catholicism, was being prepared, the citizens were asked for fifteen ships of war and 5000 men, and so eager were they for the fray that after only two days' deliberation they agreed to supply thirty ships and 10,000 men. With so many London men in the thick of the conflict, and considering the fearful issues at stake for the City and the whole kingdom, it may be well imagined that the citizens watched and listened with passionate interest for news of the Armada.

London men
in the fleet

Of the English leaders, Hawkins and Frobisher were connected with London, they owned property in the City. Sir Martin Frobisher was buried at St. Giles, Cripplegate, and a monument to the memory of Sir John Hawkins and his wife, in the church of St. Dunstan's-in-the-East, recalls their connection with that parish.

The failure of Philip's great Armada was a piece of extraordinary good fortune for England, as the English navy was inferior in every respect, and the troops at Tilbury poorly furnished and undisciplined, while Elizabeth's habitual parsimony had served to keep the ships short both of victuals and of ammunition.

During the course of the hostilities Lord Howard sent a message to the Secretary of State containing the significant words "For God's sake send powder and shot," and when the great Spanish galliasses had set sail for the North Sea, the British craft could only feign to pursue them, for they had neither food nor shot left on board. With the defeat of the Armada, London at last felt safe from foreign aggression. More than any previous event in her history, probably, this deliverance established a feeling of confidence, a reliance upon the impregnability of England's insular position, which, whether ill or well founded, had its effect in strengthening the basis of national prosperity, since the greatest naval force which a powerful enemy could produce was apparently incapable of effecting a landing. Shakespeare might well put into the mouth of one of his national heroes the stirring lines :—

Fighting
the Armada

Come the four corners of the world in arms
And we shall shock them ;
Naught shall make us rue,
If England to herself be true.

Hereafter privateering expeditions to scour the Spanish Main were actively encouraged by the Government, many a rich prize being brought into the port of London by such gallant freebooters as Drake and Raleigh and many others who were urged by patriotism, a love of adventure and the desire of gain, to take to the sea, and an immense stimulus was thus given both to the navy and to the merchant marine.

Raleigh and
Drake

One of the last acts of Elizabeth was to abolish, at the request of the Parliament of 1601, the monopolies which under Royal prerogative she had been in the habit of bestowing upon her favourites, and when, two years later, the most successful of the Tudor sovereigns passed peacefully away at her favourite palace of Richmond, she had no mourners more sincere than the citizens of London.

CHAPTER X

THE MERCHANT ADVENTURERS AND TRADING COMPANIES

Associations of merchants for mutual protection had existed, as has been seen, from very early times in London. A colony of German merchants had been on the Thames side since Ethelred's day. Italian money-changers had established in Edward III's reign the celebrated house of Bardi. Gild merchants, livery companies and other associations had familiarised men with the idea of sharing common risks and pooling aggregate profits. The privileges which had long been enjoyed by the Hanse merchants of London, although resented by their English rivals, had one good effect, in that they forced them to fare further afield beyond the Hanse towns of the Baltic and the Mediterranean in their search for trade routes and new avenues of commerce.

The co-
operative idea

To these London merchants and seamen the discovery of the New World had all the charm of a fabled story which had miraculously come true. It was as though the horizon had receded and the limits of the hitherto known world had enormously expanded before their eyes, and they flung themselves with ardour into the work of exploration and enterprise which was opened up to them.

A company of merchant adventurers had been founded in Flanders as early as 1296, under the fostering care of an unusually intelligent Duke of Brabant, and had been extended to England in Edward III's reign.

In 1564, the English merchant adventurers formed themselves into a corporation, and making London their headquarters proceeded to take the world for their parish and to expunge the word "impossible" from their dictionary.

The Merchant
Adventurers'
Company

In James I's time this company was reformed upon a new plan, and under the presidency of William Cockayne



SIR THOMAS SMITH
First Governor of the East India Company

entertained the King in so lavish a manner that the banquet cost the company no less than £1000. Cockayne's ideas of commercial development were perhaps too convivial, at all events his company of merchant adventurers came to naught, and the company had to be reformed upon the older basis.

Sir Thomas Smith was typical of all that was best in these old Jacobean merchant adventurers who laid the foundation of London's world-wide commerce. The son of a Kentish squire, one Thomas Smith of Westenhanger, who had married Alice Judd, the daughter of Sir Andrew Judd, a Lord Mayor, Thomas Smith the younger was blessed with ample means, both inherited and acquired. He used his wealth to the advantage of his country, and during a singularly active and enterprising career was instrumental in despatching more than one famous expedition on a successful voyage of discovery. He was a prominent member of the Muscovy or Russia Company, and took a leading part in founding the East India Company, of which he was first Governor. Few could have foreseen that the association of a small group of London merchants who obtained a charter of special privileges and fitted out a trading expedition to India with a total capital of £72,000, in the first year of the seventeenth century, was to be the prelude to a British occupation of that wonderful country. Yet, as the result of their action, within the brief space of two hundred years, an empire grander and more populous than that over which the Great Mogul had ruled, an empire extending from Cape Comorin to Kashmir and from the sandy deserts of Quetta to the Gulf of Martaban, was to be linked to Britain and to acknowledge the suzerainty of an English monarch.

Sir Thomas
Smith

And the
East India
Company

True, these extraordinary results were due in the main to the remarkable military and organising genius of Clive and Warren Hastings, and the long line of soldiers and administrators who have given the best brains of the Empire

to the problems of her great dependency, yet we must not forget the part played in the achievement by these plain merchants of London who, projecting a trading venture, added all unconsciously the Star of India to the Britannic crown.

In 1609, Sir Thomas Smith sent Jonas Poole as far north as Spitzbergen, and he had previously induced the East India Company to despatch Captain Weymouth on an exploring voyage in search of a north-west passage to India.

Arctic
exploration

In 1612, he became the first governor of a new company which called itself the Company of Merchants of London, and added as a sub-title rather prematurely, "Discoverers of the North-West Passage." In this and other ventures he was associated with Sir J. Lancaster, Sir Dudley Digges, Sir William Cockayne, Sir Francis Jones, Sir J. Wolstonholm, Richard Wyche, Ralph Freeman, William Stone and others. Before the formation of this company some of these men had joined to fit out the heroic Henry Hudson for that final and ill-fated voyage of his, when he sailed past the frozen coasts of Labrador only to perish at last in the great bay which bears his name.

Sir Thomas Smith did much to encourage the scientific branches of a seaman's profession, and lectures on navigation and the use of mathematical instruments were frequently delivered at his house by Dr. Hood and Edward Wright.

Sir Dudley Digges, his friend and associate, was another merchant adventurer of whom London has cause to be proud, a distinguished mathematician, diplomatist and member of Parliament, he was one of those who, by their zeal for exploration, did much to further the growth and extend the limits of the City's commerce.

Sir Dudley
Digges

William Baffin, the story of whose intrepid voyages to Greenland and to the East has been edited in recent years

by Sir Clements Markham, was a London sailor, born of poor parents, and with no early advantages. By his courage, good seamanship, and the sound knowledge of navigation which he acquired, he became the foremost sea-captain of his day, and in 1615, under the patronage of Sir J. Wolstonholm, another City magnate interested in exploration, Baffin started as pilot of the "Discovery" in search of a north-west passage to India. In 1616 he discovered, charted and named, Smith's Sound, and explored the large inlet ever since associated with his name.

Sir J. Wolston-
holm and
William Baffin

Such were some of the men who lived and worked in London three hundred years ago, forging the links which were to bind a world-wide empire to its centre in the metropolis, while James I of England and VI of Scotland sat upon the throne.

The special privileges of such trading companies as the Russia, the Levant, and the Merchant Adventurers were challenged by their rivals, the unchartered shipowners and traders, but unsuccessfully, and for a long time these companies continued to possess monopolies in regard to their chosen sphere of trade.

The severity of James towards the recusants caused great dissatisfaction among his Catholic subjects, and a few of the more desperate spirits hatched a plot to blow up both King and Parliament together. Robert Catesby and Guy, or Guido, Fawkes, were the principal leaders in this nefarious design which was fortunately prevented by its timely discovery.

A very beneficent piece of work, which ought to have been carried out by the municipality, but which owed its completion to the courage and persistence of one man, was the cutting of the New River. The project of bringing water to London from the springs of Chadwell and Amwell in Hertfordshire had been debated for some time, but the timorous City Fathers were deterred by the apparent difficulty, although the necessity

The New
River

of improving the water supply, and thereby the health of the City, was urgent.

Hugh Middleton, a goldsmith, and a brother of Thomas Middleton, afterwards Lord Mayor, undertook the task, and in spite of many difficulties carried it out. In this he was assisted by King James, who very shrewdly bargained for half the shares of the venture on condition that he defrayed half the cost. This Middleton readily agreed to do, and conveyed thirty-six shares to the thrifty monarch. These were known as Royal shares, and were compounded for by Charles I in return for an annuity of £500 a year.

King James' bargain

The property of the New River Company has since become very valuable, and one complete adventurer's share was sold some years ago for no less than £94,000.

Another important project which dated from this period was the plantation and colonisation of an estate in the north of Ireland. To carry on this work the City companies subscribed about £40,000, afterwards increased to £130,000, and founded the Honourable Irish Society.

Nor did they stop here in their efforts at colonisation. About the same time a similar enterprise was started in America under the auspices of the Virginia Company, and what were known as bills of adventure were issued, for which the Mercers, Goldsmiths, Merchant Taylors, and other City companies subscribed. In this way the City of London may claim to have helped to found the Virginia State, the first of England's free colonies.

The State of Virginia



Great Seal of James I

CHAPTER XI

CAVALIERS AND ROUNDHEADS

Neither James nor his unfortunate son, Charles I, succeeded in placing the finances of the country on a satisfactory basis, and the history of these two reigns, so far as the City is concerned, is the record of a long series of disputes about loans, benevolences and more or less illegal forms of taxation, culminating in the issue by Charles, in 1634, of the famous writs for ship money.

Charles I was unfortunate in his advisers, both Buckingham and Strafford were characterised by an imperious temper, a reckless extravagance, and a singular incapacity for practical affairs. Whatever they undertook seemed doomed to failure, and the King himself spent half his reign in scheming to obtain personal government, and the remainder in governing so badly that he antagonised many powerful interests, including that of the City.

The policy of
Charles I

The influence of London upon the tragic events which culminated in the Civil War and the execution of Charles I was considerable. The slowly-aroused animosity of a great body of citizens against the King and his government was all the more weighty because, in spite of many grievances, they had remained loyal so long. When the widening breach between Charles and his Parliament rendered it at last inevitable that the matters in dispute should be submitted to the stern arbitrament of the sword, London, as so often before in times of national crisis, exercised something analogous to a casting vote. And its vote, in spite of the stout resistance of Lord Mayor Gurney, who swore he would give up his sword of office to none but the King, fell at the last to the Parliamentary side in the great struggle for national freedom which ended so fatally for Charles.

London's
casting vote

In his efforts to rule without a Parliament the King had been obliged to have constant recourse to the City for loans,

and so it chanced that when the Long Parliament commenced its memorable proceedings by bringing in a Bill of Attainder against Strafford, a loan to the King was at the very moment being raised. Whereupon the provision of the money was stayed until the Earl should be brought to judgment.

If the vengeance of the citizens upon their enemy appears somewhat savage it must not be forgotten that Strafford, in pursuance of his conception of "thorough" government, had openly advocated hanging a few Aldermen in order to accelerate the raising of money. He had also suggested debasing the coinage, which would have been ruinous to London's trade, and was moreover suspected of a design to utilise the very subsidies, provided by the citizens themselves, for the purpose of subverting all their antient privileges and liberties and placing them under the heel of a military despotism.

It was in London that the five impeached members of the House of Commons, Pym, Hampden, Holles, Hazelrig and Strode were harboured, and the King, who was never wanting in personal courage, finding the birds had flown from Westminster, himself came to the City to demand them, but without obtaining any satisfaction. He left the Guildhall for ever with the ominous cry "Privileges of Parliament" ringing in his ears, and in August of that year, 1642, set up his standard in Nottingham.

During the Civil War, or, as Clarendon calls it, the Great Rebellion, which for the last time save one stained English soil with the blood of her own sons, arrayed in battle against one another, London, in the main and as a corporate body, sided with the Commons and against Charles. There were many individual citizens who, setting personal loyalty to the throne before other considerations, either joined the King's standard or threw their influence into the Royalist side in this great struggle, but the majority were for the Parliament. The people distrusted the king, and rightly divined that the influence of the beautiful and high-spirited Queen Henrietta

Maria, an influence more potent than even Strafford's or Laud's had been, was directed constantly towards monarchical absolutism in politics and Romanism in religion.

Apart also from religious and purely political questions, commerce had suffered and drooped throughout Charles' reign, and the shrewd citizens of London, called upon as they were to finance the Government to a great extent, were stern critics of the folly and stupidity and complete want of practical efficiency which characterised the commercial policy of the King's advisers.

The
decline of
commerce

Moreover, the Corporation and the livery companies had a very distinct grievance in the treatment which had been meted out to them in regard to their Irish plantation. This estate, which included Londonderry and Coleraine, had been acquired at the urgent request of James I, and upon it the subscribers had expended a very large sum of money and much care and trouble.

The estate had been arbitrarily wrested from their hands, and the Corporation of London, which had merely lent its name to facilitate raising the requisite funds for the project, was called upon to pay a fine of £70,000. Charles promised to redress this grievance on the occasion of that last visit of his to the Guildhall, but the power to redress grievances was fast passing from his grasp, and before he again came to London much water had flowed beneath her ancient bridge, and many a brave Londoner on one side or the other of the national conflict had fallen for King or Commons at Edge Hill, at Reading, with the noblest of all the Parliamentarians at Chalgrove Field, or in that last fateful and decisive struggle at Naseby, when Fairfax and Cromwell completely routed the Royalist forces and captured 5000 prisoners.

The
Ulster
plantation

When crown and sceptre, kingship and robe of state had fallen from him, Charles Stuart the man stood forth to meet his fate, like the brave, proud, stubborn English gentleman

he was, a King without a crown; and when, after his brief and perfunctory trial, he was executed outside his own Banqueting Hall, he did more upon the scaffold to re-establish the fallen cause of Royalism than he had ever done in council chamber or upon battlefield. Of him it was truly said that "nothing in his life became him like the leaving it."

Execution
of
Charles

Three years after the execution of Charles I, at the bidding of a strangely-constituted tribunal, presided over by John Bradshaw, a Sergeant-at-Law and Judge of the Sheriff's Court, and comprising, among others, five Aldermen of London, the City welcomed Oliver Cromwell on his return from his ruthless campaign in Ireland, and the Guildhall, where Charles had harangued the council and demanded the famous five Members, was the scene of a special feast in honour of the new Lord Protector of the realm.

City
welcomes
Cromwell

The most important event in its influence upon London during the Commonwealth was the rise of the British Navy, which may almost be said to date from Cromwell's day. It was in 1649 that frigates were first built, and whereas in the beginning of the seventeenth century the total number of ships was but forty-two, in 1658 it had risen to 157, with a tonnage of 57,000 and a force of 21,910 seamen.

The victories of Blake, Monk and Deane over the Dutch under the famous Van Tromp at Dover, Portsmouth and North Foreland wrested the sovereignty of the seas from Holland, and secured to London a free passage for her commerce upon the ocean highways of the world.

Naval
victories

The strong government and military prestige of Cromwell indirectly helped forward the development and stimulated the trade of the City, and although its charters and liberties and antient usages were not always respected, yet in its financial dealings with the Protector it had little to complain of, when once his rule was firmly established.

CHAPTER XII

THE SWING OF THE PENDULUM

The Commonwealth had triumphed, yet so little was Republicanism to the taste of the times or in accordance with the temper and traditions of the English people that the Londoners would willingly have made Oliver Cromwell king in name as well as in fact, and a petition for that purpose was actually presented to him by the Commons, but declined.

King
Cromwell

When the great Puritan leader was no more—he died on his “fortunate day,” the anniversary of his victories at Dunbar and at Worcester—it needed no great perspicacity to perceive that a vigorous reaction in favour of Prince Charles had set in. That astute soldier and diplomat, General Monk, knew that if the City was favourable the cause of the Restoration needed no further guarantee of success, and he accordingly took council with the Mayor and Aldermen, and so it fell out that the citizens of London, as so often before, took part in the election of a king of England. This time no blood was shed and no blow struck, when, amid wild rejoicings, bonfires and feastings, Charles II, the most worthless and dissolute of all the Stuarts, ascended the throne of his fathers.

The arrival of
Charles II

Two dire calamities marked the reign of the “Merry Monarch” and left an indelible impress upon London, the great plague and the great fire. The health of the City had often been such as to cause grave alarm; epidemics of varying intensity had from time to time visited it, but, in 1665, the deaths from the plague surpassed all records, rising at last to the fearful total of 24,000 within the space of the first three weeks of September. This terrible disease, which has visited various countries of the world, and was once common

in Europe, has always been associated with conditions of dirt, poverty and overcrowding, and it is only too probable that these conditions were amply fulfilled in the London of 1665. What are now regarded as the most elementary laws of sanitation and cleanliness, so far from being universally applied were hardly thought of. The City and its suburbs without the walls contained, it is estimated, some 672,000 human beings, inhabiting 84,000 houses. In the homes of the poorer sort the floors were probably of loam strewn with rushes. Fresh rushes would be scattered without removing the old, and beneath, a mass of dirt, broken victuals, and filth would collect. Apart from the New River, which was only now beginning to be used, the water supply was bad. Water wheels and conduits drew some supplies from the Thames, and many households depended even in the City upon wells, which, in the absence of a proper system of drainage, were no doubt contaminated with sewage. Little wonder that, in the midst of the unusually hot and dry summer of 1665, the plague, never entirely eliminated, should break forth with renewed virulence.

Other
troubles

The plague-
stricken city

In that fatal year no less than 100,000 persons perished in London alone, and 200,000, following the example of King and court, fled from the vicinity. Honourably distinguished among those who stuck to their posts, to afford what help they could to the stricken city, were Lord Mayor Lawrence, the Earl of Craven, the new Duke of Albemarle, better known as General Monk, and the Nonconformist divines and Presbyterian lecturers. These latter occupied the deserted pulpits of the City rectors, most of whom, to their eternal shame, deserted their flocks and sought safety in the country.

No sooner did this terrible plague show signs of abatement than a fresh calamity befell the unfortunate inhabitants of London. On September 2, a fire broke out in a

baker's shop in Pudding Lane. Such events were not uncommon, and little danger was apprehended at first, but, fanned by a stiff easterly gale, the flames soon spread to over 300 houses, and menaced the Cathedral itself.

Lord Mayor Bludworth appears to have lost his head in the emergency and failed to act with sufficient promptitude, and the flames leapt from street to street and encircled building after building until the whole city seemed doomed to destruction.

The
Great Fire

During four days the fire raged unchecked, and when at last it was stayed by the vigorous efforts of the soldiers, led by the King and the Duke of York, it was found that no less than 13,200 houses had been destroyed. The progress of the fire was stopped at last by blowing-up houses and thus clearing a space around the zone of flame; but in the meantime the venerable Cathedral had fallen, together with eighty-eight other churches, the Royal Exchange, the old Guildhall, Sion College, and many other public buildings of priceless worth as memorials and records of the past. It is said that 200,000 persons were forced to camp out in Islington and Highgate fields, and the loss of property and the hardship and poverty which followed in the train of this terrible event were felt for many a year.

Mediæval London had vanished! The London of Shakespeare and Milton and Stow was almost obliterated, and upon its site was built the modern city as we now know it. Changed, indeed, and changing with each generation of its citizens and each decade of its history; but in many of its most important and most picturesque features modern London is the city which rose from the ashes of the Great Fire.

And that it did rise in such beauty and dignity as befits its history and its place among world-cities is due in large part to the genius and to the extraordinary industry of one man, Christopher Wren.

The encouragement given to Wren in his architectural schemes is almost the sole good deed which can be recorded



SIR JOSIAH CHILD

A famous governor of the East India Company, a wealthy merchant and banker in the seventeenth century

concerning Charles II in his relations with London. It was well said of the Stuarts that they learnt nothing and they forgot nothing, and Charles II had all his father's leaning towards absolutism without any of his private virtues. To the list of misfortunes which befell the City during this reign, interference with their antient charters and liberties must accordingly be added. In this, Charles was neither grateful nor politic. As for gratitude, no one in the wildest excesses of royalist adulation has ever accused the "Merry Monarch"

Wren and the
re-building of
London

of such an attribute—it was indeed a weakness from which he was singularly free. During his wanderings as a disinherited and exiled prince, he had found a secure and hospitable refuge in Holland. As King of England, he made war upon the Dutch! At his accession the powerful influence of London had favoured his claims; the Mayor and citizens had called him to the throne and furnished him with money at a time when it was sorely needed. In return he plundered the Exchequer and held the antient charters of the City to forfeit with his statute of "Quo Warranto."

The
King's
character

Certain wealthy goldsmiths had commenced the practice of keeping "running cashes," as they were called in the City: it was the beginning of the modern system of banking.

Those who thus received deposits of money from private individuals were in the habit of lending it to the King, who paid them a rate of interest somewhat higher than that which they allowed to their customers. The money was paid into the Exchequer, the bankers taking assignments of the public revenue for payment of principal and interest as it came in.

The
beginnings
of banking

In 1672, at a time when about £1,300,000 was owing to London bankers, Charles, acting on the advice of Lord Clifford, calmly announced that no payments would be made out of the Exchequer for a year. This caused widespread

financial depression, and brought Alderman Backwell, one of the wealthiest of these early bankers, to utter ruin.

Another and more fortunate banker was Francis Child, a goldsmith, who, in 1663, founded a banking house which is still in existence. Hoare's Bank, which has also survived to our own time, was founded in 1680, and as early as 1672 Charles Duncombe kept a running cash at the sign of the Grasshopper, in the house once used by the great Thomas Gresham of Elizabethan fame.

Messrs. Martin are the business successors of Duncombe, and their premises in Lombard Street, being built upon the same site, probably constitute the oldest commercial establishment in London. Both Child and Duncombe got wind of the nefarious design on the Exchequer, and saved themselves and their clients by withdrawing their money in good time.

In the notorious Judge Jeffreys, once Recorder of London, Charles found a ready tool for the furtherance of his tyrannical projects in regard to the City government.

A too courtier-like and compliant Lord Mayor, Sir John Moore, had nominated certain sheriffs who, like himself, were inclined to be *plus royaliste que le roi*. The people refused to elect them, and chose instead Papillon and Dubois. Out of this grew a conflict between the King and the City, which afforded a specious pretext for impugning the antient right of election, and the validity of charters which were old before King Charles' ancestors had crossed the Tweed.

Jeffreys, fresh from his bloody assize in the West Country, made short work of poor Alderman Cornish, who had been the champion of these antient rights, and whose sole fault was his opposition to the King's nominee for the shrievalty, but who nevertheless paid the penalty of his opinions with his life.

It was a time of national degeneracy and municipal humiliation, the court resembled rather the harem of some oriental satrap than the household of a Christian monarch.

Charles had lawlessly appropriated his subjects' money, and as though to add a final touch of degradation to his office, he at the same time secretly accepted the pay of France.

Yet it was this period that gave to English letters the unmatched music of Milton's stateliest epic, "Paradise Lost," which was completed in 1663, much of it being probably dictated (for the poet was already blind) in Jewin Street, or in another later, and probably humbler, dwelling-place of his in Artillery Row, Bunhill Fields.

A great poet
and a great
architect

And it was amid the debauchery and licence of these unhappy times that the domes and spires and pinnarets of the City churches rose one by one out of the wreckage of the fire in their pale spiritual beauty, as though in protest against the evil around them, each perfect shape taking its place in one great harmonious design, in response to the persistence, energy and genius of Sir Christopher Wren. He designed St. Magnus with its dainty aerial charm, the clear-cut, chaste outline of St. Bride, and fronting the busy thoroughfare of Cheapside, the haunt and home of merchandise for a thousand years, like an upward pointing witness to higher things, he planted the lofty and majestic steeple of St. Mary-le-Bow.



View of St. Paul's from the River



SIR CHRISTOPHER WREN
The Architect of St. Paul's Cathedral

CHAPTER XIII

ST. PAUL'S

But greatest of all Wren's triumphs is the Cathedral. It was on June 21, 1675, that the first stone of the great edifice was laid upon the rising ground where once had stood a temple of Diana. The venerable site was already hallowed by thirteen hundred years of Christian worship, for the first church was built in the third century, and through all the vicissitudes of "Paul's," as the citizens affectionately called their cathedral church, it had been the central and pivotal point of municipal life. In the wide open space to the north of the church, and surrounding Paul's Cross, the men of London had gathered on many an historic occasion at the tolling of the great bell for folk-mote or witenagemot, or some less formal meeting to discuss grievances, to hear a message from the King, or take leave of him on his departure for a foreign shore.

An
historic
spot

Each Michaelmas they had met here for the election of sheriffs, at Christmas for making arrangements for watch and ward, and in June, on St. John's Day, to take precautions (alas, in vain!) against fire.

For thirty-five years the great work of building went on, and in 1710, Wren, now an old man (he was ninety-one when he died), had the satisfaction of seeing his masterpiece finished, save for a few decorations. Its massive outline and lofty towering dome, whether seen from the busy street or from the quiet river, constitute the most characteristic feature of London, the one picture which, out of countless spectacles and the blur of endless traffic, the visitor takes away with him as the predominant impression of the great city.

Wren's
masterpiece

St. Paul's, with its high-arched windows, its stately pillars, its Byzantine wealth of decorative detail, and its colossal size, has occasionally evoked the hostility of art critics,

notably that of the late Mr. Ruskin, but has never failed to win the hearty admiration and sincere reverence of the man in the street. Londoners are proud of it, and of the distinguished London citizen who built it. Wren designed more than fifty churches to replace those destroyed by the fire, and was also the architect of the old Royal Exchange, the Custom House, Temple Bar (since removed), Marlborough House, portions of Westminster Abbey, besides many notable private houses.

His
industrious
activity

After the death of Charles II there followed the brief and inglorious reign of his brother, who, as Duke of York, had on more than one occasion crossed the wishes of the people. James II realised at last that the long series of injuries which had been inflicted upon London and the kingdom were rousing a storm he was powerless to quell. Too late he tried to make amends by restoring the old privileges of the City in regard to the election of its Mayor and sheriffs, but William of Orange had already landed at Torbay in 1688, and James was forced rather ignominiously to take his departure in a hired boat from Vauxhall stairs, dropping the Great Seal in the River Thames as he went. It is significant of the esteem in which the antient governing body of the City of London was held, that when in the absence of King and legislature a national convention was called to take the place of a parliament, the Mayor and aldermen and fifty members of the Common Council of London were asked to form part of it.

The
flight of
James II

This convention formally offered the crown to William and Mary, and after its acceptance became the first parliament of the new reign. London's charters were solemnly re-enacted and given back, and thereafter were never again challenged or threatened by royal authority.

This new regime was popular among the great body of Londoners, and nowhere were there more sincere rejoicings

than in the City when the news came, four years later, of the victory of La Hogue, at which the French fleet, which was to replace James on the Throne of England, was signally defeated.

It was during this reign that the East India Company, which had already grown very wealthy and powerful and had fallen under the autocratic governance of one remarkable man, Sir Josiah Child, signalised its monopolist powers by getting a rival merchant vessel stopped in the port of London on the bare suspicion that she was bound for the Indies. The action of the company aroused a great uproar among rival merchants, and, as a result, for a time, free trade with India was permitted.

Sir Josiah
Child

Owing to the heavy expenses of the war with France, and the difficulty experienced in raising money, a scheme was projected by a clever Scotsman for financing the King.

William Paterson's idea of a national bank was taken up by a number of wealthy merchants and favourably received by the government, and, in spite of considerable opposition in both houses of Parliament, a charter conferring special powers upon the governor and company of the Bank of England was passed, and received the royal assent on April 25, 1694.

Bank of
England

The new bank commenced operations at Grocers' Hall on January 1, 1695, with Sir John Houblon as its first governor. Michael Godfrey, one of the first directors, who had done more than anyone else to carry into practical effect the scheme of a great national bank, was killed by a stray shot while attending King William at the siege of Namur. But in spite of this loss the new venture prospered.

The amount which it had undertaken to raise for the government was £1,200,000, and this sum was subscribed within ten days of the opening of the account, the government agreeing to pay 8 per cent. for the loan.

With the establishment of the Bank of England, a phase of London's history in its relation to the nation and its government comes to an end. For hundreds of years London had been the King's Chamber, it had been regarded as the national purse, and it was to the Mayor and aldermen of London that the officials of the King's treasury had been accustomed to go whenever money was required to meet the special necessity of the time. If the Corporation in its official capacity had thus continued to finance the government of the day, it is difficult to estimate the height to which London's political influence would have risen; but the great banking institution, while putting a limit to the direct financial relations of the King and the City Fathers, conferred an immense boon upon the commerce of London, which thereafter, in spite of South Sea bubbles and other financial panics, went steadily forward with ever-increasing volume and rapidity of development.

During the reign of Anne, last and most amiable of the Royal House of Stuart, stately ceremonies and solemn thanksgivings took place in St. Paul's after the victories of Marlborough, and many a high banquet at the hospitable Guildhall and the halls of the livery companies was spread to welcome home the returning hero of Blenheim, of Ramillies and Malplaquet, or to celebrate the victories of Ormond and of Rooke.

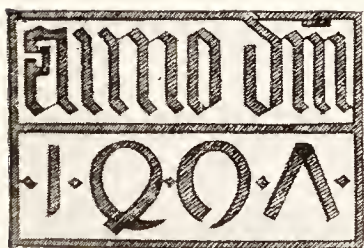
A sermon preached before the Lord Mayor by the famous Dr. Sacheverell gave rise to riotous scenes in the city, and good Queen Anne, who sympathised with the church views of the worthy doctor, after his trial and triumphant acquittal, presented him with the living of St. Andrew's, Holborn, and set about providing additional churches for London. The House of Commons was appealed to, and, money being provided, about fifty new churches were built, mostly in the suburbs. It was while the two first English princes of the House of Hanover, George I

and George II, sat upon the throne, that the antient city flung off almost the last vestiges of its mediæval appearance, Blackfriars Bridge was built, the Fleet River was covered over, the old walls were demolished, and the gates were pulled down.

Old London Bridge, long the pride of the City, and sometimes referred to by its admirers as one of the wonders of the world, had originally been built by Peter of Colechurch in 1209.

This early London ecclesiastical architect, about whom comparatively little is known, is thought to have been a member of one of those mediæval societies of brethren of the bridge which had been founded by Clement III, and which owed their origin to the labours of Peter of
Colechurch Father Benezet, the brave monk who built the bridge of Avignon. So well did Peter build his bridge, that with some occasional restorations his work lasted for 600 years.

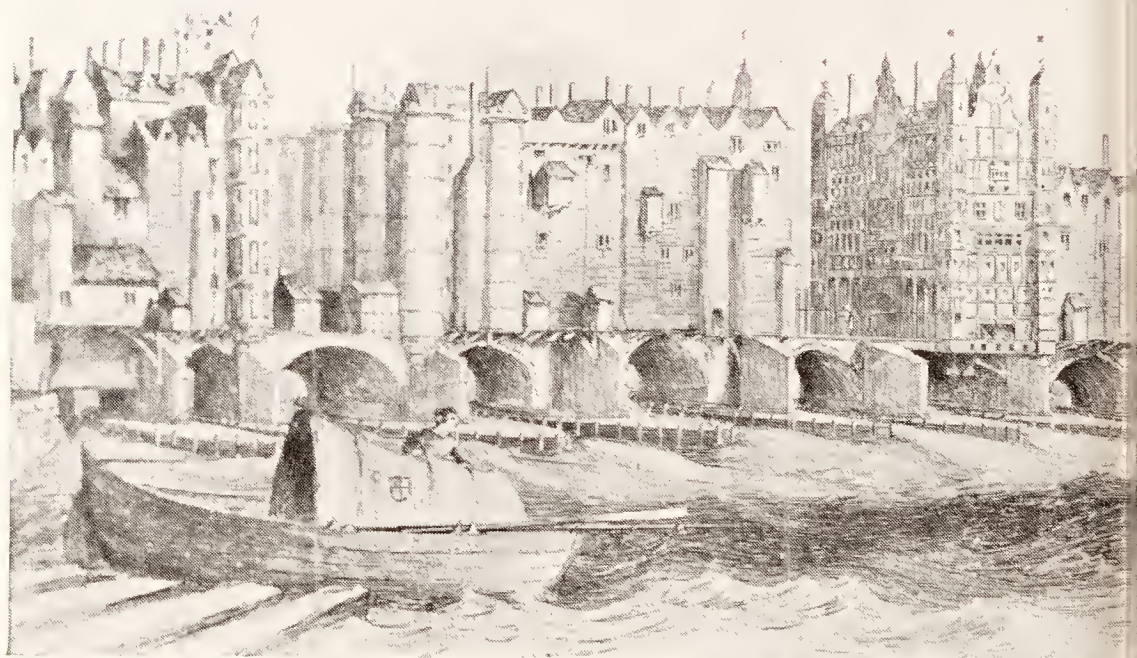
In 1756 the houses and chapel which had stood on the bridge from time immemorial were removed, to accommodate the ever-increasing traffic.



Dates and Bridge Marks carved on Stones of
Old London Bridge



A VIEW OF LONDON IN 1710



OLD LONDON BRIDGE AS IT APPEARED BEFORE



F. DE WIT, OF AMSTERDAM



6, WHEN THE HOUSES WERE REMOVED



WILLIAM BECKFORD

Twice Lord Mayor of London and a fearless champion of her antient privileges

CHAPTER XIV

THE HOUSE OF HANOVER

London now began to assume its modern aspect and to give indications of growth to something like its present dimensions, although it was not until about the middle of the eighteenth century that the most phenomenal additions to its bulk and population took place.

Two men of very different character stand pre-eminent in the civic annals of the long and eventful reign of George III—namely, William Beckford and John Wilkes.

Of these, Beckford was by far the more credit-A contrastable to the mayoral chair, but both accomplished a useful work in stoutly maintaining the hard-won liberties of the City. Beckford, who was elected alderman in 1752, was a warm friend, admirer and political follower of the great Pitt, afterwards Earl of Chatham, and on the occasion of King George's visit to the Guildhall, according to custom on the first Lord Mayor's banquet after his coronation, Beckford's strong partisanship led him to organise an ovation for Pitt, and the consequence was that the Earl of Bute, who had recently supplanted that statesman as prime minister, met with a rough reception.

Beckford waited upon the King with a formal remonstrance with regard to the refusal of the House of Commons to accept Wilkes, who had been duly elected to Parliament, and, undismayed by the ungracious receptionWilliam Beckford accorded to his petition, in a famous speech he respectfully but firmly pressed upon the King's attention the points at issue.

Many wealthy merchants, many brave, strong and highly-reputable citizens have ruled the City since Henry FitzAlwyn's day, men of conscience and men of honour, but in all the long list there is perhaps no more remarkable figure than



JOHN WILKES

A famous Lord Mayor of London. In spite of a certain profligacy of character, John Wilkes stands out as a famous citizen of London. He successfully asserted the claim of the people to elect their own representatives to Parliament, in the teeth of opposition from that assembly itself

that of John Wilkes. This extraordinary man, wit, profligate, pamphleteer and politician, aroused the delighted admiration of the citizens, who supported him with growing enthusiasm during his long struggle with the House of Commons, a struggle in which he was ultimately victorious.

John
Wilkes

Wilkes became alderman and, later, Lord Mayor, and was largely instrumental in obtaining the freedom of the Press to report the speeches and proceedings of Parliament, a task in which he was aided by another champion of popular liberties, Alderman Brass Crosby.

London looked with dismay at the growth of regal power and the venality of the Commons, and during the long and acrimonious dispute with the American colonies, which commenced with the Stamp and Tea duties and culminated in the War of Independence, the City's sympathies were largely with the colonists, and the Mayor and sheriffs did not hesitate repeatedly to urge upon the King and his ministers a more pacific policy, and one more in accord with the constitutional rights of his distant subjects. But their remonstrances were in vain; their petitions met with a curt refusal, and even their antient right to address the King in person as representatives of the City was disputed.

The City and
the American
colonies

While the war with the American colonies dragged on, London was disturbed by a No-Popery riot led by the fanatical Lord George Gordon. A huge mob of disorderly persons gathered together, ostensibly to present a petition to Parliament against the removal of Roman Catholic disabilities, and taking advantage of the inadequate police arrangements of the City, they proceeded to sack and pillage houses and chapels to their hearts' content. The *posse comitatus* had to be called out by the sheriffs, and the aid of the military invoked before the rioters could be dispersed. During this strange episode

Lord George
Gordon

in London's history, inimitably depicted by Charles Dickens in his "Barnaby Rudge," 210 rioters were killed and about £180,000 worth of property destroyed.

During the last years of the eighteenth century, England, which had viewed with disapproval the excesses of the French Revolution, was at war with France. In 1796, a war loan, afterwards called the "loyalty" loan, was called for by William Pitt the Younger, who was then at the head of affairs. £18,000,000 was required, and it is significant of the altered conditions and growing opulence of the City, and also of the popularity of this patriotic minister, that a subscription list opened for this sum at the Bank of England on Thursday, December 1, resulted in the whole amount being subscribed and the list closed on the following Monday morning.

Nevertheless, these were anxious and troublous times for England and for London. The expenses of war had piled up the National Debt to what was then considered an enormous total. The star of Napoleon was rising upon the horizon, and his schemes of world conquest menaced England at every point. The patched-up peace of 1802 was soon ruptured, and despite splendid naval victories, the issue of the conflict was such as no man could foresee. London was not backward in making her preparations.

On the very day that the French crowned their First Consul as Emperor, the City volunteers were reviewed and presented with their colours at Greenwich. The Artillery Company and the London militia, not to be outdone, startled the quiet citizens of Finsbury and City Road with their vigorous exercises and the firing of ordnance.

The old river highway of the City had witnessed many a solemn pageant and many a sad pilgrimage, but none so splendid or so mournful as that which, on January 8, 1806, bore all that was mortal of the heroic Nelson towards his last resting-place in St. Paul's.

Death of
Nelson

As the procession of barges came up the river, "draped in the sad habiliments of woe," to the slow, reluctant stroke of dripping oars and the boom of the minute gun, all London crowded to the river's brim to pay the last sad honours to the saviour of his country, who had regained at such a cost the victory of the sea.

Nine years after England had asserted her naval supremacy at Trafalgar, the citizens of London had occasion to rejoice over the news of the great land victory of Waterloo, which for ever freed them from the dread of a Napoleonic invasion.

Of the suffering and poverty, which are the inevitable aftermath of protracted war, we catch a glimpse in the Spa Fields riots, which disturbed the City in the very year after Waterloo, riots which might have swollen to the dimensions of a revolution but for the prompt and courageous action of the Lord Mayor, Matthew Wood. This same Matthew Wood was afterwards elected M.P. for the City, and proved a staunch friend and champion to the unfortunate and much-maligned Queen Caroline, consort of George IV.

A chivalrous
Mayor

London may claim to have been the leader in the movement to abolish religious disabilities in regard to public appointments, by consistently throwing open her highest office to the best man, irrespective of his religious opinions.

Since the day when Sir Rowland Hill, the first Protestant Mayor, had been elected, in the time of Edward VI, the mayors had with few exceptions been Protestant, but in 1827 and 1828 the City supported Lord John Russell in the repeal of the Corporation and Test Act; and in 1830, long before Jews had been admitted to Parliament, the Common Council of London passed a Bill for extending the freedom of the City to all natural born subjects upon their taking the freeman's oath in accordance with their own religion, with the result that David Salomons, a distinguished Jewish citizen, became successively sheriff, alderman, and finally, in 1855, Lord Mayor.



ALDERMAN SALOMONS, M.P.
The first Jewish Lord Mayor of London

The Reform movement of 1832 was warmly supported by the Corporation, and in accordance with antient usage they addressed a petition to the King, setting forth the necessity of giving a truly representative character to the House of Commons.

The Reform
Bill of 1832

London's advocacy of parliamentary reform had been a continuous movement for many years, renewed in successive petitions and addresses to the Throne. With the successful passage into law of the famous Reform Bill of 1832, we may appropriately bring this sketch of London's political history to a close; not, indeed, that that history was ended or London's political influence waning. On the contrary, the years that have followed under the long and glorious reigns of Victoria the Good and that of her illustrious son, Edward the Peacemaker, have been crowded with great events and stirring scenes. But, more completely than ever, the history of London has merged into that of England, and become part of a story which could only be adequately told in a great volume of many pages.

Suffice it to say that almost every notable figure in our national history during the last eighty years has been in some way associated with the City of London. Across the hospitable threshold of the Guildhall great statesmen like Russell and Peel, Disraeli and Gladstone, the witty and far-seeing Marquis of Salisbury, and the present great party leaders, Mr. Asquith and Mr. Balfour, have stepped in succession, and each, irrespective of political bias, has received the City's cordial welcome and hearty greeting.

London
and
England

Soldiers and pro-consuls, conquerors and ambassadors, philanthropists and explorers, princes of the blood royal, and men whose only sovereignty lies in the world of thought, or who have won a foremost place by their own sheer ability and the splendour of their achievements, have all in turn been fêted and honoured by the City.

Perhaps the most striking pageants, the one mournful and the other joyous, which passed through the streets during the nineteenth century were the funeral of the Duke of Wellington in 1852 and the Diamond Jubilee of Queen Victoria in 1897.

Two great
pageants

* * * * *

While this brief historical sketch of the premier city of the British Empire passes through the press, its Greatest Citizen moves on and out from the many-figured stage where he had been so often the central actor, and the place he loved and honoured is plunged into deepest mourning.

Edward VII, King and Emperor, whose quick sympathies, broad humanity and gracious personality had long endeared him to the countless millions over whom he ruled, was by birth a Londoner, having first seen the light at Buckingham Palace on November 9, 1841. In the lifetime of his revered mother, Queen Victoria, his official residence was at Marlborough House, and during her long widowhood, the late King, then Prince of Wales, had laid upon him in large measure the duties and responsibilities of the monarchy, and was frequently seen at social and public functions in London. His all too brief reign has been distinguished by the exercise of an influence, quiet and constitutional, but none the less effective, in the direction of international peace and of national efficiency, while every movement for the betterment of the people and for the alleviation of human suffering has had his hearty sympathy and earnest co-operation. His benevolent interest in the sick and suffering of London took practical shape in many ways, notably in the foundation of the "King Edward Hospital Fund," which has done so much to solve the problem of maintaining these great institutions by voluntary aid.

Edward VII
a native
of London

King Edward breathed his last on May 6, 1910, in the room which he had occupied habitually for some time, and in the same royal palace in which he was born.

His brief illness had not prepared the public for so sudden and tragic a termination, and the news caused a universal sensation of poignant grief and regret.

On May 17, the body of the beloved monarch, who was nowhere more sincerely mourned than in his native city, was moved from the Palace to Westminster Hall, where, by an arrangement well in accord with the democratic and popular sympathies he had so frequently evinced during his lifetime, the dead King's funeral bier was accessible to all, without distinction of class or creed, who desired to gaze upon it for the last time.

The passing
of a great
king

On the following Friday, May 20, followed by his son and successor, George V, and by no less than eight other reigning monarchs, and accompanied by the representatives of all the civilised states of the world, and of all that is most distinguished in the domain of national and international affairs, Edward the Peacemaker was borne to his last resting-place at Windsor, and buried in the tomb of his ancestors in the beautiful Chapel of St. George. Meanwhile, in accordance with the constitutional custom, a proclamation announcing the accession to the throne of His late Majesty's sole surviving son, Prince George, was made by the Garter King-at-Arms at St. James' Palace; by the Lord Mayor from the steps of the Royal Exchange; and by Lord-Lieutenants and civic dignitaries throughout the country. The ancient historic connection between the monarchy and the City of London was demonstrated once more by the very form of words used in the proclamation which associates the Lord Mayor and Aldermen of London with the Privy Council and lords spiritual and temporal in calling King George the Fifth to the throne of his ancestors.

Proclamation
of George V



PROCLAMATION OF THE ACCESSION OF KING GEORGE V FROM THE STEPS OF THE ROYAL EXCHANGE
BY THE LORD MAYOR (SIR JOHN KNILL), MAY 9, 1910

CHAPTER XV

MODERN LONDON

That London is entitled to rank among the antient cities of the world has been sufficiently demonstrated. Its story dates back, as has been shown, for at least two thousand years, and from the buried relics thrown up by the spade of the excavator, from crumbling archway and footworn stone, and from the very names of its streets and districts, we glean ever and again eloquent fragments and mementos of its past.

True, it cannot bear comparison for sheer antiquity with Babylon or Damascus or Bagdad, with the ruined glories of Carthage or with earthquake-riven Syracuse. Nor can it be denied that Athens and Rome were making history when London was little better than a half-civilised outpost. While in commerce, population, and in arts Venice, Antwerp, and Paris were all greater than London at one period or another of the Middle Ages, yet all have fallen behind in the race, and allowed her to surpass them in size, in wealth and in numbers.

The old cities
of the world

In some of these great sister cities the marks of age are more discernible than in London. Their past is so great it overshadows the present, and their streets seem haunted with the accumulated memories of the ages that lie behind.

In some the movements of modern life seem hindered and obstructed by the massive vestiges of an out-worn civilisation, the dust of many yesterdays lies thick upon them and weighs them down as though beneath the debris of time.

After twenty centuries of history, does London also shrink within herself and, gathering about her the faded mantle of antiquity, begin to go softly with flagging pulse and faltering feet? Not so. London is old, but she is strong and vigorous, and through her veins there rushes the life blood of a great people; her streets are astir with an eager and intense activity; her commerce is on

London's
youthful
vigour



SIR JOHN KNILL
Lord Mayor of London, 1909-1910

every sea, and links her with every land; her voice carries a message of helpfulness and of authority to every corner of the earth.

London has learnt the secret of eternal youth which is eternal growth, and she is growing and changing beneath our very eyes. So rapid and so ceaseless has been this development that it is sometimes difficult to recognise the traces of Old London or to affix limits and boundaries to the new.

The imperious necessities of the present are constantly sweeping aside some antient landmark or flinging down the last traces of age-worn buildings, which the antiquarian would fain preserve, yet enough is still left to enable us to reconstruct in imagination the old walled city through whose gates so many generations of English folk have come and gone; we see it again as it appeared at the beginning of the eighteenth century before the marvellous expansion of modern times had commenced, and when, roughly speaking, it lay between Westminster and Wapping with just a triangular strip on the south bank of the Thames stretching from Blackfriars to the Upper Pool.

Vanishing
relics of the
past

A little later, in 1756, just before the picturesque houses and the chapel which had sheltered for five hundred years the bones of Peter of Colechurch were removed from the old bridge, greater London had extended from Park Lane to Whitechapel, and was continuous except for the river from Clerkenwell to the Borough Road.

Growth of
London
suburbs

The next eighty odd years witnessed a further considerable expansion, and when the great Reform Bill of 1832 was ushering in a new era for England, her capital city had planted its northern limits in Camden Town and on the green slopes of Haggerston, and had stretched out long fingers toward the east as far as Poplar and Greenwich. Its southernmost boundary was at Loughborough, and

westward groups and clusters of stately mansions, solid, comfortable homesteads and even business premises were covering the ground on either side of Hyde Park.

But it was during the Victorian era that the phenomenal and unparalleled increase in the size of London took place.

In the Victorian era North, south, and west, and to some extent to the east also, the suburbs were pushed outwards with a tireless and ceaseless persistence past Dalston, Canonbury and Stoke Newington, the stream of houses and people bursting northwards rushed forward to meet another which, skirting London Fields and Hackney Downs, and covering Homerton and Clapton in its path, was stayed at last on the steep slopes of Stamford Hill.

A great solid block of bricks and mortar had grown up to the north-west from Kentish Town to Haverstock Hill and Gospel Oak, and trailing off into villas and country houses on either side of the windswept heath, the outward movement was peopling Highgate and Hampstead with well-to-do citizens in search of roomier haunts and purer air.

St. John's Wood was by this time a wood no more, though many a venerable and umbrageous tree still stands to attest the original propriety of its name.

Westward the more wealthy and aristocratic denizens of the City were pressing in an ever-widening stream. Over the smiling levels of Bayswater and beside the green enchantments of Kensington Gardens, where Queen Victoria played and prattled as a child, to fill with mansions and terraces the open spaces of Earl's Court and West Kensington and Hammersmith. Meanwhile a dense population had grown up along the river by Battersea and Chelsea, and the Bishop's palace at Fulham was by this time not only surrounded by houses but looked out across the river on the new great suburb of Putney.

To the south, Clapham, Camberwell and Peckham were already populous, and beyond, colonies and outposts of the main army of occupation had been established as far out as Tooting, Streatham, Norwood and Sydenham. In 1881, the area included by the boundary line of the old Metropolitan Board of Works, whose functions have since been taken over by the London County Council, reached from Highgate, Crouch End, and Stamford Hill on the north, to Wimbledon, Croydon and South Norwood on the south, and from Willesden and Putney Heath on the west to Woolwich Arsenal and Plumstead Marshes on the east.

Southern
development

Since then Londoners have been busy filling up all the interstitial spaces of this huge area, with the exception of the noble parks and recreation grounds of which they are so justly proud, and which provide lungs and healthful breathing spaces here and there in the great congeries of townships, villages and hamlets of which the metropolis is composed.

The vast aggregate of human beings comprised within this wider London, and numbering over seven million souls, is governed by many different public bodies besides the City Corporation and the London County Council. Some districts, such as Westminster, Bethnal Green and Croydon, have each a mayor and corporation of their own, while others have their local affairs managed by vestries and other local district boards.

Under this composite government, London is well lighted and paved, its health is good, and its police are the admiration of all visitors, yet some there are who regret that the old City Council was unable to gather under its ægis the successive additions to historic London, and thus bind all into one splendid whole.

Composite
government

That the suburbs did not become one after another “wards without the walls” was not the fault of the City Fathers. When the great ecclesiastical estates which surrounded Old London were broken up, they were given with the manorial rights attached to them to the new nobility which Henry VIII enriched. Some day, perhaps, Greater London, menaced by some common danger or impassioned by some lofty ideal will be thrilled from centre to circumference by a sentiment of unity which will break down these antient divisions and weld these diverse governing bodies into one mighty and homogeneous municipal federation, a veritable folk-mote representing and linking together all who have part or place in the Great Metropolis.

The
future



Seal of the Corporation of the City of London

THE MARCH OF SCIENCE

“ Without a scientific foundation no permanent super-structure can be raised. Does not experience warn us that **the rule of thumb is dead and that the rule of science has taken its place**; that to-day we cannot be satisfied with the crude methods which were sufficient for our forefathers, and that those great industries which do not keep abreast of the advance of science must surely and rapidly decline ? ”

*Extract from a speech by H.M. King George V
(when Prince of Wales), at the International Congress
of Applied Chemistry, London, May 27, 1909.*



WELLCOME CHEMICAL RESEARCH LABORATORIES
KING STREET, LONDON

This INSTITUTION is conducted separately from the business of BURROUGHS WELLCOME & Co., and is under distinct direction, although in the Laboratories a large amount of important scientific work is carried out for the firm

AWARDS CONFERRED UPON THE
WELLCOME CHEMICAL RESEARCH LABORATORIES

INTERNATIONAL
EXPOSITION
ST. LOUIS, 1904

ONE GRAND PRIZE
AND
THREE GOLD MEDALS



INTERNATIONAL
EXHIBITION
LIÉGE, 1905

ONE GRAND PRIZE
ONE DIPLOMA OF HONOUR
AND
TWO GOLD MEDALS

INTERNATIONAL
EXHIBITION
MILAN, 1906

ONE GRAND PRIZE



FRANCO-BRITISH
EXHIBITION
LONDON, 1908

TWO GRAND PRIZES



FOR
CHEMICAL AND PHARMACOGNOSTICAL RESEARCH
ETC., ETC.



WELLCOME PHYSIOLOGICAL RESEARCH LABORATORIES
HERNE HILL, LONDON

THIS INSTITUTION is conducted separately from the business of BURROUGHS WELLCOME & CO., and is under distinct direction, although in the Laboratories a large amount of important scientific work is carried out for the firm

AWARDS CONFERRED UPON THE

WELLCOME PHYSIOLOGICAL RESEARCH
LABORATORIES

INTERNATIONAL
EXPOSITION
ST. LOUIS, 1904

ONE GRAND PRIZE
AND
ONE GOLD MEDAL



INTERNATIONAL
EXHIBITION
LIÉGE, 1905

ONE GRAND PRIZE
AND
TWO GOLD MEDALS



INTERNATIONAL
EXHIBITION
MILAN, 1906

ONE GRAND PRIZE



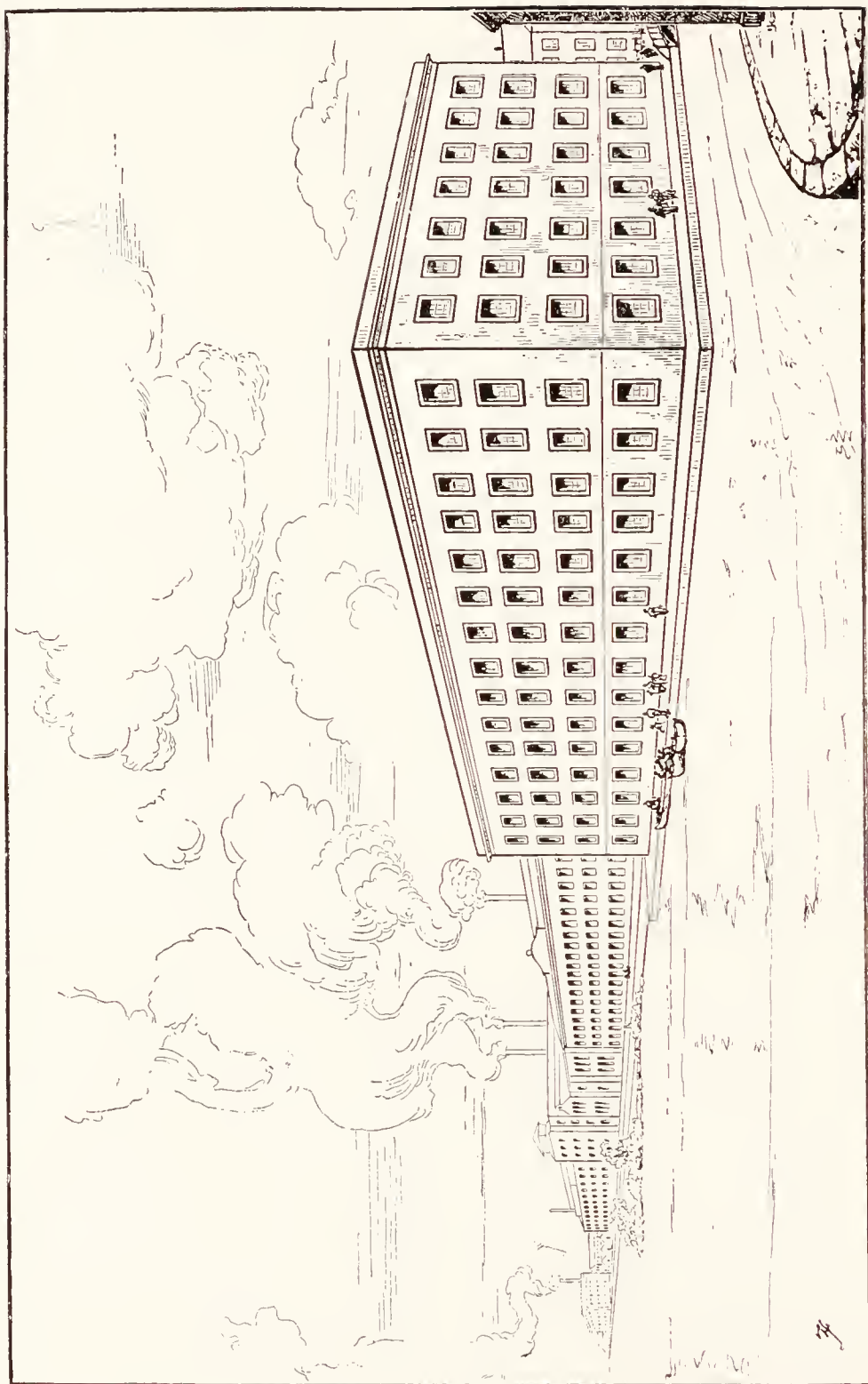
FRANCO-BRITISH
EXHIBITION
LONDON, 1908

TWO GRAND PRIZES

FOR

PHYSIOLOGICAL RESEARCH AND PREPARATIONS

ETC., ETC.



'WELLCOME' CHEMICAL WORKS, DARTFORD, NEAR LONDON

THE WORK OF
BURROUGHS WELLCOME & CO.

From the time of the founding of the firm, scientific advance has been steady and continuous. The keynote of this success lies in the firm's own original work, conducted under the most favourable conditions, as well as their ready recognition of all scientific advances and research, and adaptation of the results to the methods of modern production.

Keynote of
success

"The rule of thumb is dead and the rule of science has taken its place."

"Science and Industry" has been the guiding motto of B. W. & Co. from the first. They have aimed at attaining and maintaining the highest possible degree of excellence in the products they issue. By keeping abreast of research work, and by promptly adopting the most scientific modern methods, they have not only kept pace with the latest developments in medicine and pharmacy, but have been pioneers in the introduction of some of the most notable agents employed in modern medicine, and have contributed largely to the great advances of the times.

"Science and
Industry"

Patient and persistent research * by a staff of chemical, pharmaceutical and physiological experts has yielded fruitful results. Not only has the firm satisfied the highest requirements of physicians by the purity, reliability and scientific precision of the products, but it has met the needs of conscientious pharmacists who pride themselves on the *supreme* quality of everything they dispense.

Results of
scientific
research

* Research pioneered by Burroughs Wellcome & Co. many years ago is still continued in their works by a highly-qualified staff. The Wellcome Chemical Research Laboratories, King Street, London, and the Wellcome Physiological Research Laboratories, Brockwell Hall, Herne Hill, London, are Institutions conducted separately and distinctly from the business of Burroughs Wellcome & Co., and are under separate and distinct direction, although in these two Institutions a large amount of important scientific work is carried out for the firm.



PORTION OF FRONTAGE
BURROUGHS WELLCOME & CO.'S CHIEF OFFICES, LONDON
Corner of Holborn Viaduct and Snow Hill,
facing Holborn Viaduct Station

To supply medicaments characterised by purity, accuracy, uniformity and reliability has been the firm's policy from its earliest days. This has been achieved by devising new appliances, by employing only the most scientific methods, and by conducting the various stages of manufacture under the direct supervision and control of specially-trained and qualified pharmacists and other experts. High appreciation has been accorded by physicians and pharmacists throughout the world to the "WEAPONS OF PRECISION" created by the firm. Untiring, strenuous endeavour and vast expenditure have been required to attain these successful results.

"Weapons of Precision"

WORKING IMPERIALLY

Mr. Joseph Chamberlain has taught the nation to think Imperially—Burroughs Wellcome & Co. work Imperially.

It has been the special ambition of this firm to win back to England by actual merit some of the lost industries snatched away from the country in recent years by alert, enterprising rivals of other lands, who wisely, and well, apply science to their industries, and slumber not. B. W. & Co., never content with the time-honoured "rule of thumb" methods, have, in a considerable measure, gratified their ambition. Particularly in the production of Fine Medicinal Chemicals including the powerful alkaloids, glucosides and other active principles now so largely replacing the use of bulky and nauseous crude natural drugs, thus securing greater certainty and uniformity of potency.

Bringing back to England lost industries

In this work it has been the aim not only to equal but to surpass foreign production, and the results speak for themselves.

PIONEERS IN NEW DRUGS

The firm has pioneered the introduction of many new and valuable natural drugs, notable amongst which may be mentioned Strophanthus, or Kombé, the powerful African arrow poison which has proved so efficacious in certain heart disorders.

"Turned a deadly enemy into a valued friend."



United States of America
BURROUGHS WELLCOME & CO.'s
Offices and Exhibition Room :
35, 37 & 39 West Thirty-third Street
(near Fifth Avenue), NEW YORK CITY

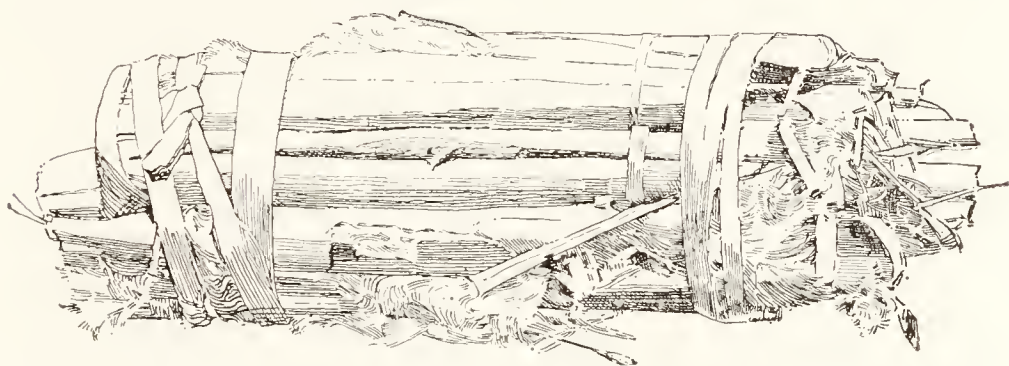
Sir THOMAS FRASER of the Edinburgh University first investigated and demonstrated the properties of Kombé from a comparatively small specimen, and B. W. & Co. immediately took vigorous steps to procure supplies of the drug regardless of expense and immense difficulties.

Pioneers in the
introduction of
Strophanthus

Emissaries were sent to collect the small reserves of arrow poison from the rude huts of many Central African warriors. In this way a fair quantity was accumulated, but at a cost of more than £20 per pound.

£20 per pound

Thus the true Strophanthus Kombé was first introduced to England and to the world—B. W. & Co. were first in the field.



A bundle of the first consignment of Strophanthus which reached Europe for Burroughs Wellcome & Co.

These earliest supplies were obtained quite regardless of monetary considerations, and, notwithstanding the great cost, parcels of the drug and its preparations were at once distributed, without charge, to leading physicians throughout the world. By this means the therapeutic properties of strophanthus were confirmed by investigators in various lands.

For more than a year this was the only supply of Strophanthus outside the "Dark Continent," and then B. W. & Co. again secured all that was obtainable, and were the only suppliers for many months. Strophanthus is now one of the approved remedies of the Pharmacopœias. In less than two years the firm was treating several hundred-weights of strophanthus seeds at a time, thus securing

Products of
B. W. & Co.
secure pre-
cision of dose

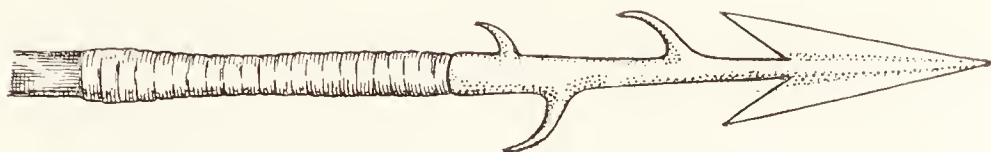


Italy

BURROUGHS WELLCOME & CO.

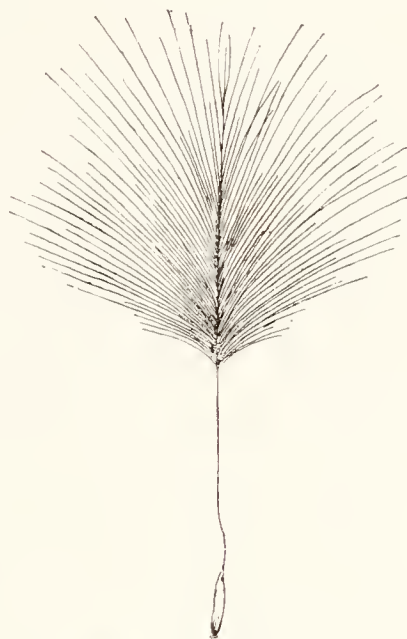
26, Via Legnano, MILAN

perfect uniformity in the activity of the products, and enabling the dosage and action to be controlled with precision.



Arrow-head poisoned with *Strophanthus*

Amongst those who were interested in the introduction of *Strophanthus* were Sir JOHN KIRK (then of Zanzibar), and Dr. DAVID LIVINGSTONE, who referred to its employment by natives as an arrow poison, in his narrative of his expedition to the Zambesi. It was the intimate association which BURROUGHS WELLCOME & Co. have always had with the pioneers of African exploration which enabled them to be first in placing supplies of the drug at the disposal of the medical profession.



Plumed seed of *Strophanthus Kombé*

STROPHANTHUS KOMBÉ, the source of the drug, is a woody climber growing freely in many parts of Eastern Africa. From the seeds the natives prepare a paste with which they poison their arrows.



Australia
BURROUGHS WELLCOME & CO.
481, Kent Street, SYDNEY, N.S.W.

The seeds are contained in follicles, and each bears a beautiful plume-like appendage springing from a delicate stalk. Each seed weighs about half a grain.

PIONEERS IN PHARMACOLOGICAL WORK ON ANIMAL SUBSTANCES

When renewed attention was drawn to the therapeutic action of certain animal substances, this firm pioneered the pharmacological work on the various glands, having already been long engaged upon researches on brain matter and other-substances of animal origin. They were first to produce a stable and reliable product of the thyroid gland, and this remains the standard and accepted preparation amongst the medical profession throughout the world.

Although the principle suggesting and guiding this modern departure in therapeutics is the outcome of recent physiological research, the belief in the use of organs or tissues for the relief of human suffering, or for the production of certain physical conditions, is known to have existed from the earliest times. Antient belief

The belief in the utility and value of animal glands and tissues in the cure of disease is not altogether the outcome of modern research, for we learn from Herodotus, fifth century B.C., that in his day the people called Budini or Geloni "used the testicles of otters, beavers and other square-faced animals for diseases of the womb." From prehistoric times savage peoples have eaten the hearts of lions, tigers and other courageous animals, and even of human enemies, with the object of acquiring added valour in battle.

Among old-world medicines, compounds of the organs and tissues and excreta of mammals, birds, fishes and insects occupied permanent positions of prominence. They were included in the London Pharmacopeia issued by the Royal College of Physicians in 1676, and in Salomon's New London Dispensatory of 1684. The present increasing use of animal substances may be largely traced to the researches and



South Africa
BURROUGHS WELLCOME & CO.
5, Loop Street, CAPE TOWN

enthusiastic advocacy of Brown-Séquard, though it must be admitted that such advocacy was exaggerated, and perhaps lacked dignity and reserve. In spite of his attitude, which experience has not justified, he, in some considerable measure, succeeded in establishing his contention that all glands, with or without excretory ducts, give to the blood, by internal secretion, principles always important and in most cases essential, to the general well-being of the body.

Organo-therapy, animal medication, and glandular therapeutics are among the terms now applied to the administration of organs or tissues or of the internal secretions of glands, in certain diseases, induced, or believed to be induced, by the degeneration, disease, defective development, or removal of the corresponding organs, tissues, or glands. Many diseases, arising from defective functions of particular organs, are now treated with these animal substances, and the principle has been established that the lessened or lost power of an organ may in some cases be restored by the administration of corresponding organs taken from healthy lower animals.

Modern
knowledge

The work of Burroughs Wellcome & Co. on these animal substances has been directed not to the therapeutic but to the chemical and pharmacological side, and the production of active and staple products for the use of the medical profession, and in this they have attained marked success.

Amongst other animal products dealt with was the supra-renal gland, which yielded first to Abel and Crawford a powerful and highly valuable active principle under the title Epinephrine. Other workers produced modified products, but the active principle was first produced in a dry, soluble, active form in the Wellcome Physiological Research Laboratories, and is now issued by the firm under the title 'Hemisine.'

GOOD OR EVIL

Ergot, "the blessed and cursed blight of rye," which has wrought much good and much evil, a substance greatly

valued as a remedy, and yet it destroyed countless lives during the grain plagues called St. Anthony's fire of the middle ages.

Ergot blessed
and cursed

Ergot of rye has been one of the problems that has long baffled scientific workers. It was investigated in these same laboratories, and the true representative active principle was discovered, and is now issued as a standardised product of great power and uniform activity of immense importance to the medical profession.

THERAPEUTIC SERA

The Wellcome Physiological Research Laboratories were pioneers in the production of Anti-Diphtheritic Serum in the British Empire, and also supplied the first used in America. During the early days, and until the real value was conclusively demonstrated, all offers to purchase supplies of the serum were refused, but all that could be produced was freely placed without charge at the disposal of the principal clinics, hospitals and private medical men who had diphtheritic cases under treatment. These trials proved successful, and the 'Wellcome' brand of serum supplied by B. W. & Co. has continued to hold first place throughout the Empire. These laboratories have done a vast amount of original work in the whole range of therapeutic sera—and in vaccines, etc., and in many other organic bodies of importance in medicine.

Though these Physiological Research Laboratories are conducted under separate and distinct direction, and many of the researches are solely of scientific interest as contributions to human knowledge, yet much work of practical value is carried out for the firm, the Principal of which founded the laboratories.

FINE CHEMICALS

The Wellcome Chemical Research Laboratories have worked in the same manner with benefit to science and to the firm, devising new chemical processes and producing

new chemical agents, both organic and inorganic. The investigations of vegetable drugs and their representative principles have yielded highly important results, both in the discovery of new principles and in raising the standard of purity and potency of valuable well-known substances, notably Pilocarpine, Aconitine, etc., etc. The co-operation of these two research laboratories, with their efficient scientific staffs, working under the guidance of the two highly qualified Directors, distinguished for thoroughness and accuracy, is of immense importance to the firm.

Raising the
standard

But the research work does not rest here. There is also, in the experimental and analytical laboratories at the firm's works, a highly skilled staff constantly engaged in research for the discovery of new active chemical and pharmaceutical substances, and for the improvement of those already known.

Amongst the recent discoveries are 'SOAMIN,' the new substance which has proved so successful in the treatment of Syphilis, and of the dread Sleeping Sickness now rapidly decimating the population of the Congo, Uganda and other parts of Central Africa; also 'ORSUDAN,' now under trial for Malaria; and 'NIZIN,' the new antiseptic—powerful, but free from many of the dangers of other antiseptics.

A large number of other important developments in chemistry and pharmacy have been made in the works' laboratories, including the production of Chloroform of a standard that secures greatly increased uniformity and safety, and the confidence of the medical profession.

In the manufacturing departments every operation is studied with the view to new discoveries and improvements, and aiming to make daily progress.

EQUIPMENTS

Completely fitted cases have been devised to meet the requirements of up-to-date medical men and others engaged in medical and sanitary science; for example, hypodermic, ophthalmic cases, urine testing, water analysis, bacteriological testing cases, etc.

Medicine and first-aid chests, cases, belts, etc., for military and naval purposes, for explorers, missionaries, travelling journalists, war correspondents, aeronauts, motorists, yachtsmen, planters ; in fact, equipments, for the air, for the earth, for the depths, and for every clime under every condition.

HISTORY OF COMPRESSED DRUGS

Burroughs Wellcome & Co. are successors to, and the sole proprietors of, the business of BROCKEDON, who, in 1842, originated compressed medicines in the shape of bi-convex discs—issued under the designation of “compressed pills.” The production of compressed substances has been developed and carried to a high state of perfection by B. W. & Co. This has been accomplished by research and the use of chemicals of exceptional quality, and by the employment of specially-devised machinery of rare accuracy. This exclusive machinery, invented by the firm, and produced at great cost, operates with the precision of the finest watch-work. By its aid the firm’s specially-trained expert chemists are enabled to prepare compressed products for issue under the ‘Tabloid,’ ‘Soloid’ and other brands, of unique accuracy of dosage and of a perfection of finish never before attained. These products present medicines, etc., of so varied a character as to represent a range of dosage of 1/1000 of a grain to 60 grains or more.

The qualities of purity, accuracy, activity and stability which characterise ‘Tabloid’ and ‘Soloid’ products have secured unusual appreciation and approval from medical and pharmaceutical experts, and these preparations are prescribed in private practice and in military and civil hospitals in all parts of the world.

MEDICAL AND FIRST-AID EQUIPMENTS

Burroughs Wellcome & Co. have from the time of the founding of the business made a special feature of studying medical and surgical requirements for expeditions to tropic

and arctic and other trying climates, especially for the use of explorers, journalists and other travellers ; for armies in camp, on the march, and on the battlefield.

Careful and prolonged enquiry and practical experimentation have enabled them to so perfect their equipments for these purposes that almost every military expedition and journalistic pioneering tour of recent years has been fitted out by the firm.

B. W. & Co.'s GENERAL OFFICES

The firm's chief offices and administrative premises are centrally situated in the City of London, facing Holborn Viaduct Station, and at the junction of Holborn Viaduct and Snow Hill. They are thus within Chief offices a stone's throw of such historic sights as St. Paul's Cathedral, the Old Bailey (Central Criminal Courts), the Charterhouse, St. Bartholomew's, and Smithfield.

' WELLCOME ' CHEMICAL WORKS

The ' Wellcome ' Chemical Works (*illustrated on page 110*), which form the principal manufacturing premises of the firm, are situated at Dartford, Kent, near London.

On one side the Works have direct water com- Works munication with London and the Docks of the waterway of the Thames ; on the other side they front on to the railway and so are in touch with the Metropolis and the Continent.

A description of the ' Wellcome ' Materia Medica Farm will be found on *page 143*.

SIX B. W. & Co. ESTABLISHMENTS ABROAD

Burroughs Wellcome & Co. have fully-equipped establishments at New York, Montreal, Sydney, Cape Town, Milan, and Shanghai. Photographs of the Milan, Sydney and Cape Town Houses appear on *pages 116, 118 and 120*.



LOUIS PAULHAN IN HIS AEROPLANE

Reproduced from an actual snapshot taken as Paulhan was leaving Hendon on his epoch-making flight from London to Manchester (April 27-28, 1910). Inset is a portrait of Paulhan and a photograph of the 'Tabloid' First-Aid Outfit which he carried with him throughout this historic flight'

‘TABLOID’ BRAND FIRST-AID
FOR
AVIATORS, MOTORISTS, AND SPORTSMEN

The charm of rapid movement through the air, on the earth, or above it, exercises an irresistible fascination, and gains more votaries daily for aviation and for motoring.

It is impossible to eliminate entirely all risk of injury from these attractive sports, and, unfortunately, accidents occasionally befall even the most careful and experienced.

This ‘Tabloid’ First-Aid, No. 706, has been specially designed to provide what is necessary for rendering first-aid in cases of accident or injury within the least possible space. So that no one need be deterred from carrying a first-aid case by its bulk, the size has been limited to that of an ordinary cigarette case.



‘Tabloid’ Brand First-Aid, No. 706. Closed

It contains one bandage 3 yards by $2\frac{1}{2}$ inches, one small package containing pins and compressed Boric Gauze, a metal box containing strapping plaster in detached pieces, mounted on tape, so that it can be used without scissors, safety pins and ‘Vaporole’ Aromatic Ammonia, for use as “smelling salts.”

A bottle of Carron oil gauze for use in case of burns or scalds is also included, a packet of jaconet, some of which may be placed over the gauze, and forms an impervious covering, protecting the injured part from the air, and a little booklet of court plaster cut into convenient sized strips.

The case is made of aluminium, light yet rigid, with a fluted surface and a steel spring-catch. It can be carried in the pocket under all circumstances without the slightest



'Tabloid' Brand First-Aid, No 706. Measurements: $3\frac{1}{2} \times 3 \times \frac{3}{4}$ in.

Weight: $\frac{1}{4}$ oz. 1 dr.

inconvenience, and forms a real safeguard against the complications which may arise out of a neglected wound.

The preparation of a complete 'Tabloid' First-Aid outfit of such small dimensions has been rendered possible by the use of the pleated compressed bandages and dressings originated by Burroughs Wellcome & Co. A small quantity of gauze or lint can be removed from one of the packages, when required, without disturbing the bulk, and the remainder retained free from contamination by dust or dirt, for future use.

Amongst the Grand Prizes awarded to Burroughs Wellcome & Co. by the International Jury of the Franco-British Exhibition, one was presented specially for Medical and First-Aid Equipments.

TRADE
MARK

'TABLOID' BRAND FIRST-AID

FOR

Automobilists, Aviators, Yachtsmen, Sportsmen, Travellers, Tourists, etc., and for use in the Factory, Workshop and Warehouse.

These equipments provide ideal outfits for emergency requirements before the arrival of medical assistance. Their utility is enhanced by the high standard of the contents, and by their general adaptability to first-aid requirements.

Cases
and
contents
are of the
B. W. & Co.
sterling
quality.

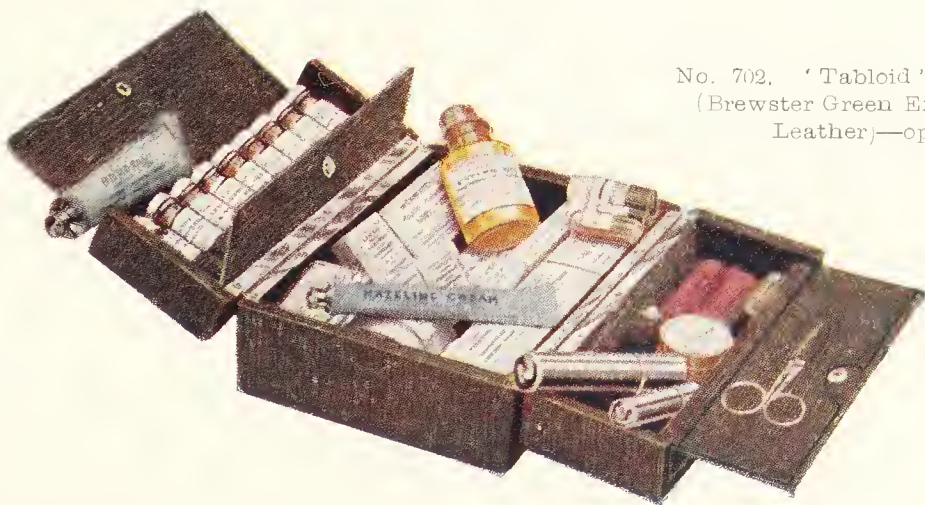


No. 702. 'Tabloid' First-Aid (Royal Blue Enamelled Leather)—closed
Measurements: $7 \times 5\frac{1}{4} \times 2\frac{3}{4}$ in.

NO. 702. 'TABLOID' Brand FIRST-AID (*Registered*)

Contains 'Tabloid' Bandages and Dressings, 'Vaporole' Aromatic Ammonia, for use as "Smelling Salts," 'Borofax,' 'Hazeline' Cream, sal volatile, Carron oil gauze, jaconet, tourniquet, plaster, protective skin, scissors, pins, etc., and eight tubes of 'Tabloid' and 'Soloid' Brand products.

In Rex Red, Royal Blue or Brewster Green Enamelled Leather.



No. 702. 'Tabloid' First-Aid
(Brewster Green Enamelled
Leather)—open

No. 703. 'TABLOID' Brand FIRST-AID (*Registered*)

Contents similar to those of No. 723 First-Aid (*see page 132*).

In Rex Red, Royal Blue or Brewster Green Enamelled Leather. Measurements: $8 \times 6 \times 3$ in.

No. 707. 'TABLOID' Brand FIRST-AID (*Registered*)

Contains 'Tabloid' Bandages and Dressings, 'Vaporole' Aromatic Ammonia, for use as "Smelling Salts," 'Borofax,' Carron oil gauze and jaconet, castor oil, plaster, protective skin, scissors, pins, etc., and seven tubes of 'Tabloid' and 'Soloid' Brand products.

In Rex Red, Royal Blue or Brewster Green Enamelled Metal, or in Aluminised Metal.



No. 707. 'Tabloid' First-Aid (Rex Red Enamelled Metal)

Measurements: $6\frac{1}{2} \times 3\frac{1}{4} \times 2$ in.

No. 712. 'TABLOID' Brand FIRST-AID (*Registered*)

Contains 'Tabloid' Bandages and Dressings, 'Vaporole' Aromatic Ammonia, for use as "Smelling Salts," 'Borofax,' Carron oil gauze and jaconet, castor oil, plaster, protective skin, scissors, pins, etc., and seven tubes of 'Tabloid' and 'Soloid' Brand products

In Rex Red, Royal Blue or Brewster Green Enamelled Metal, or in Aluminised Metal.



No. 712.

'Tabloid' First-Aid (Brewster Green Enamelled Metal)

Measurements:

$6\frac{1}{2} \times 4\frac{1}{4} \times 2$ in

The medicinal contents of these cases are selected in view of emergency requirements, but, if desired, they can be varied in accordance with the prescription of the purchaser's physician.

No. 715. 'TABLOID' Brand FIRST-AID (*Registered*)

Contains 'Tabloid' Bandages and Dressings, 'Vaporole' Aromatic Ammonia, for use as "Smelling Salts," 'Borofax,' sal volatile, Carron oil, jaconet, plaster, protective skin, scissors, pins, etc., and eight tubes of 'Tabloid' and 'Soloid' Brand products.



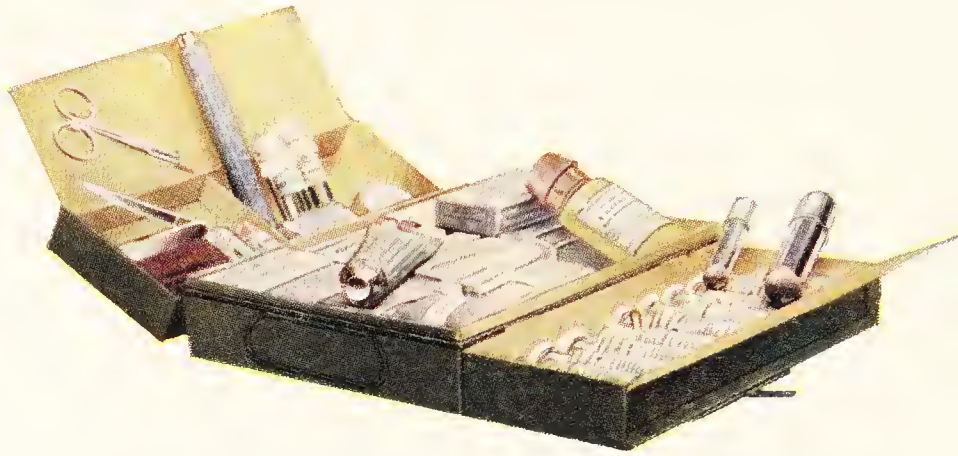
No. 715. 'Tabloid' First-Aid (Royal Blue Enamelled Metal)
Measurements: $7\frac{1}{2} \times 4\frac{1}{4} \times 2$ in.

In Rex Red, Royal Blue or Brewster Green Enamelled Metal, or in Aluminised or Black Japanned Metal.

No. 722. 'TABLOID' Brand FIRST-AID (*Registered*)

Contains 'Tabloid' Bandages and Dressings, 'Vaporole' Aromatic Ammonia, for use as "Smelling Salts," 'Borofax,' 'Hazeline' Cream, sal volatile, Carron oil gauze, jaconet, tourniquet, plaster, protective skin, scissors, pins, etc., and eight tubes of 'Tabloid' and 'Soloid' Brand products.

In Rex Red, Royal Blue or Brewster Green Enamelled Metal, or in Aluminised Metal. Measurements: $6\frac{3}{4} \times 4\frac{3}{4} \times 2\frac{1}{4}$ in.

No. 723. 'TABLOID' Brand FIRST-AID (*Registered*)

No. 723. 'Tabloid' First-Aid (Brewster Green Enamelled Metal)
Measurements: $8 \times 5\frac{1}{2} \times 2\frac{1}{4}$ in.

Contains 'Tabloid' Bandages and Dressings, 'Vaporole' Aromatic Ammonia, for use as "Smelling Salts," 'Borofax,' 'Hazeline' Cream, sal volatile, Carron oil gauze, lancet, tourniquet, jaconet, plaster, protective skin, scissors, pins, etc., and nine tubes of 'Tabloid' and 'Soloid' Brand products.

In Rex Red, Royal Blue or Brewster Green Enamelled Metal, or in Aluminised Metal.

No. 905. 'TABLOID' Brand
PHOTOGRAPHIC OUTFIT
(*Registered*)

A complete, compact chemical outfit for developing, toning and fixing plates, films, bromide or gaslight papers, and for toning and fixing P.O.P.

Contents make over one-and-a-half gallons of solution.

In Rex Red, Royal Blue, Imperial Green or Bright Scarlet Enamelled Metal, or in Black Japanned Metal.

When ordering, please state which colours are required.

For full information regarding this Outfit and 'Tabloid' Photographic Chemicals, see booklet sent gratis and post free on application to BURROUGHS WELLCOME & Co.



No. 905. 'Tabloid' Photographic Outfit
(Bright Scarlet Enamelled Metal)

Measurements: $4 \times 4 \times 2\frac{1}{8}$ in.

MODERN PHOTOGRAPHIC METHODS

PHOTOGRAPHY AND COMMERCE

Photography is so often regarded as one of the amusements of life that its immense utility in the domain of commerce is in danger of being overlooked. Yet it is difficult to exaggerate the service which the art of the camera is capable of rendering in regard to that practical application of science to industry which constitutes the most striking feature of our modern civilisation.

In every department of industrial activity there is a growing complexity of organisation, a growing demand for machinery, for labour-saving devices and for increased rapidity and precision in the methods and processes of work. And those who are called upon to register this growth and to keep in touch with the constant development and progress which is always going on are finding a useful ally in photography.

The utility of
photography

Take for instance the work of the Consul or correspondent representing the interests of a country, or of a private firm, and charged with the duty of forwarding to his principals reports and information concerning the commodities required and the resources of some distant centre of commerce. Obviously his reports will gain very greatly in interest and in clearness if they are accompanied by photographs of the articles and scenes he describes.

To the inventor and the mechanical engineer, the architect and the draughtsman, photography is essential, and it is not less so to the scientific stock breeder and to the farmer, who are able in this way to bring the results of successive years into actual comparison and thus test conclusively the success of their methods.

In commercial
and scientific
pursuits

Some examples of photographs of the ' Wellcome ' *Materia Medica* Farm are reproduced on *pages* 142-146, and serve to illustrate the utility of keeping such pictorial records.

The great advantages of doing one's own photographic work are obvious, but the bulk of a photographic equipment and the troubles and disappointment connected with chemical solutions have hitherto deterred many busy men of affairs from taking up this fascinating and most useful hobby. But to-day these difficulties have practically disappeared.

The camera-maker is able to produce instruments of surprising compactness and the chemist is able to offer 'TABLOID' chemicals which occupy a minimum of space and achieve the maximum of efficiency.

Chemical
difficulties
solved

'TABLOID' Photographic Chemicals are pure chemicals compressed into small bulk, but yet more readily soluble than the same chemicals in crystallised form. These products each contain a precise weight, so that the trouble of weighing or measuring is entirely obviated. Simply dropped into a measure-glass containing the necessary quantity of water, they disintegrate and dissolve with remarkable rapidity.

The advantages which 'Tabloid' chemicals possess in home use are intensified when development and similar operations have to be conducted in odd moments and in out-of-the-way places. A complete chemical outfit of 'Tabloid' products is comfortably carried in the pocket or wallet without danger of trouble consequent on the breakage of bottles of fluids.

The fact that 'Tabloid' Photographic Chemicals will retain their activity unimpaired, with ordinary care, in all climates, renders them particularly suitable for travellers.

Not only do 'Tabloid' Photographic Chemicals rid development, toning and other processes of all the uncertainties which accompany the use of impure chemicals and

stale solutions, but they also remarkably simplify these operations, and impart to them a scientific precision which cannot otherwise be obtained.

All developers and chemicals essential for the practice of photography at home and abroad are issued as 'Tabloid' products, but to meet the special needs of those who require the utmost condensation and the widest utility in the equipment they use, Burroughs Wellcome & Co. have issued, as the results of special research and wide experience, a developer which is universal in utility and unique in compactness. This is 'Tabloid' 'RYTOL' Universal Developer. It is so compact that the materials for 88 ounces of solution occupy only the same space as *one* ounce of fluid. It is so universal in application that it will develop plates, films, bromide and gaslight papers as well as lantern slides with equal facility and equal certainty. It makes a bright clear solution even with water, which, with ordinary chemicals, becomes cloudy and discoloured.

The ideal
developer

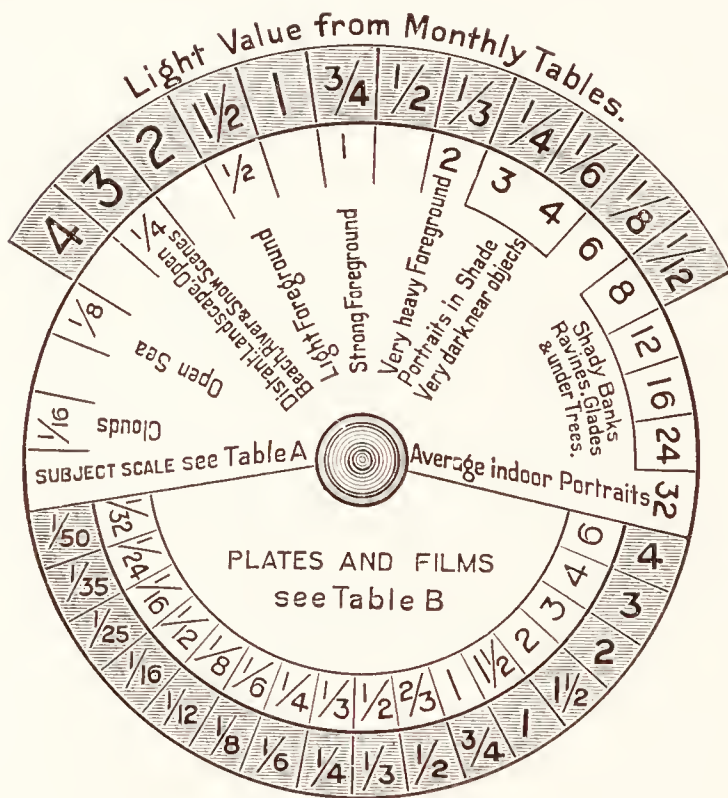
CORRECT EXPOSURE IN ALL LANDS

The vital importance of correct exposure in securing good negatives has been demonstrated by the researches of Messrs. Hurter and Driffield, and is acknowledged by all successful photographers. Both the amateur and the skilled worker require some assistance in gauging the actinic value of light which varies with the climate and other conditions. To meet this need, Burroughs Wellcome & Co.'s photographic experts have condensed the results of their special study of the question of exposure into a pocket-book known as THE 'WELLCOME' PHOTOGRAPHIC EXPOSURE RECORD AND DIARY, and have combined with their own experience that of Journalists, War Correspondents, and Travellers in all parts of the globe from the Arctic to the Antarctic. Many methods have been devised for ensuring correct exposure—some requiring complicated calculations,

Certainty in
exposure
essential

others the use of elaborate tables or special apparatus. The simplest and most certain method is provided by the ingenious mechanical Calculator contained in each copy of THE 'WELLCOME' EXPOSURE RECORD AND DIARY. Its essential feature is a disc, *one* turn of which tells the correct exposure at a glance.

The illustration here shown makes its simplicity clear. The central white portion is the revolving disc which registers with the two fixed scales, shown in tint. Facing the Calculator are



tables giving light values, so arranged that the table for each month comes to the front in its proper season. The Calculator is set by turning the disc until the subject to be photographed registers with the figure representing the light value. That *one* turn is all that is necessary. In addition to thus

providing an easy way of calculating correct exposure, THE 'WELLCOME' EXPOSURE RECORD is a pocket note-book and encyclopædia of photographic information. There are three Editions—(1) Northern Hemisphere, (2) Southern Hemisphere, (3) United States of America. These editions give the information necessary for correct exposure in all parts of the world.

THE RECORDS OF TRAVELLERS

Records of travel and exploration into distant and little-known parts of the world constitute a most fascinating department of literature, and one which attracts an ever-increasing host of interested readers. To catch a first glimpse of some far-off untamed region of the earth's surface, "where foot of man has rarely, if ever, trod," even though it be only in imagination, is an intellectual pleasure of a high order. Or, on the other hand, we may have vividly brought before us the conditions of life among races widely removed from our own in the line of their development, or lagging behind the stream of human progress like remnants and reminders of primeval man; we can track wild beasts in their native haunts, scale lofty mountains and penetrate mysterious caverns and inaccessible deserts.

The charm of
books of
travel

Nothing delights the intelligent student more than thus to dive into the unknown in the company of an author who has seen and heard what he describes. Such books as "Through Darkest Africa," "Trans-Himalaya," "Farthest South," etc., etc., which palpitate with actuality and bring before us a new vision of the world as it is, are full of interest and of immense educational value.

Workers in this strenuous field of literary effort have found in Photography a most serviceable companion, and the difficulties which at first enveloped the practice of this art on the march or in out-of-the-way places have to a great extent disappeared. With a modern camera and a good supply of 'Tabloid' Photographic Chemicals there is hardly any part of the process which cannot be carried out on the very spot where the negative has been exposed.

Enhanced
by
photographs

The Rev. B. M. McOwen, famous for his vivid and picturesque treatment of Chinese domestic scenes, regularly



THE KING OF BEKWAI
One of the Ashanti Chiefs of the Gold Coast Colony sitting under the State Umbrella and surrounded by his followers



A CHINESE BARBER AT WORK

uses 'Tabloid' 'Rytol' Universal Developer.

Mr. Frank G. Carpenter, a well-known New York journalist, who, in 1906, travelled through Northern, Eastern and Southern Africa,



THE SHIPS OF THE DESERT
A String of Saharan Camels

commenting on the 'Tabloid' Photographic Outfit which he had taken with him, wrote: "The Photographic material sent was of the highest quality, and I am forwarding a few of the photographs among the many we took from time to time."

A characteristic Saharan picture of a string of camels, from one of Mr. Carpenter's prints, is reproduced on *page* 138.

Among those who have carried 'Tabloid' Photographic Chemicals as part of their travelling equipment for an exploring expedition, may be mentioned Sir Sven Hedin, the story of whose intrepid journeys in Tibet is related in "Trans-Himalaya." He visited Tashi-Lunpo, one of the forbidden cities, where probably no European had ever set foot before, and interviewed the Tashi Lama, the venerated spiritual chief of the Buddhist religion, by whom he was cordially received.

Sir Sven Hedin
and the Tashi-
Lama

Sir Ernest Shackleton took a complete outfit of Photographic chemicals on his perilous journey into the Antarctic zone (when he got within 97 miles of the South Pole), and pronounced them quite satisfactory.

'Tabloid' Photographic Chemicals were also taken by Captain Scott on his famous Antarctic voyage in the *Discovery*.

Mr. R. L. Jefferson, F.R.G.S., in his book "Through a Continent on Wheels," writes: "I should like to mention that this firm (B. W. & Co.) prepares Photographic Tabloids in a compressed form, and those photographers who desire to develop their plates en route cannot do better than adopt their portable and reliable outfits."

Mr. L. N. G. Ward, a traveller whose photographic work is of a high order, uses 'Tabloid' Chemicals. The roll film of a striking picture of his entitled "The King of Bekwai," which is reproduced on *page* 138, was developed with 'Tabloid' Pyro-Metol.

'Tabloid' Photo-
graphic chemi-
cals in Ashanti—

Mr. T. Allen, of Auckland, attributes his photographic success to the use of Burroughs Wellcome & Co.'s 'Tabloid' Chemicals for both developing and printing. In his extended travels more than once round the world, he has always used them, and has always been able to secure uniformly good results. The keeping qualities of 'Tabloid' Photographic Chemicals in hot climates have been amply proved by the experience of voyagers to various parts of the world. One well-known traveller, Lionel Declé, used them to develop no less than 4000 plates during the course of his wanderings across Equatorial Africa.

A writer in the *Pall Mall Gazette* (November 5, 1909), in an article entitled "Chasing the Sun," thus describes the advantages of these products.

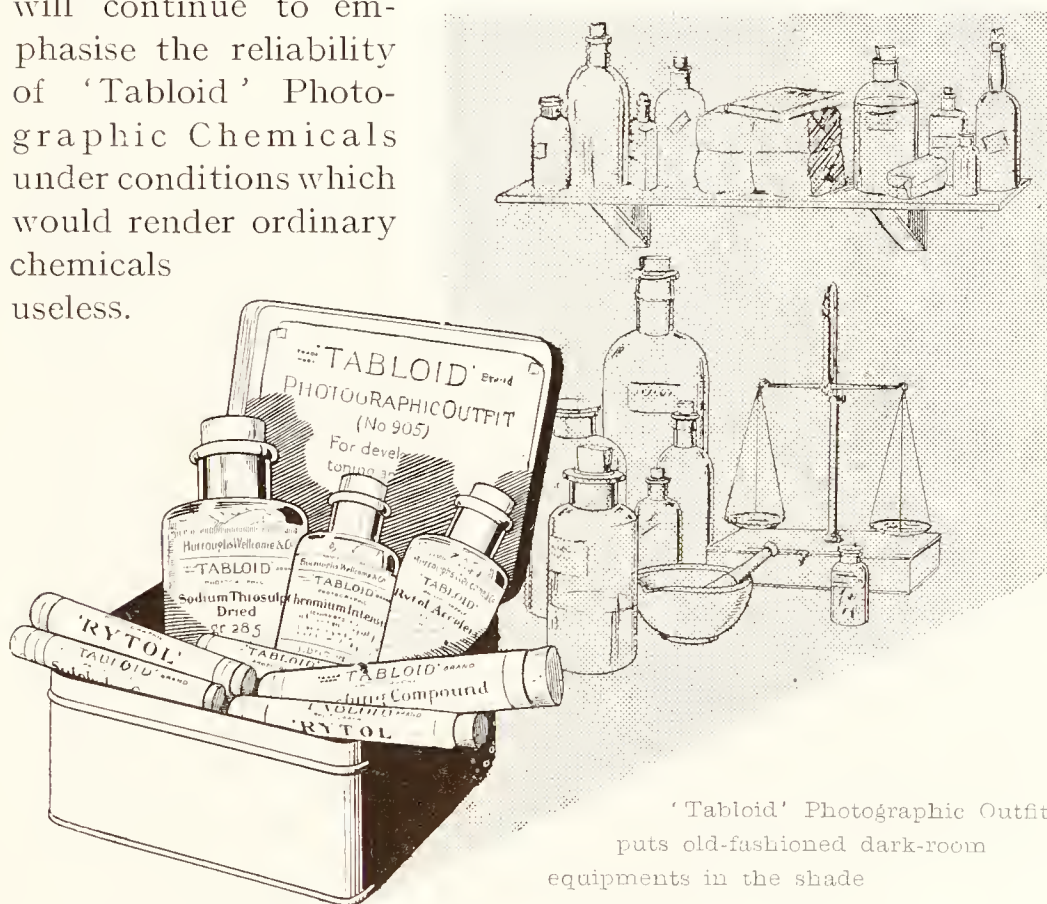
"A camerist myself, I have often come across—I had almost written 'always come across'—brethren in the art who took bulky cases of developers, fixers and other chemicals, which took up much room in the kit bag, and which they sometimes could not replace when they were used up. This is one of the drawbacks to Kodaking in out-of-the-way places. All this inconvenience and worry can be saved, since the time-tested, excellent tabloids sold by Burroughs Wellcome & Co. are sufficient for all needs. In a phial that may be carried in the waistcoat pocket, you have sufficient developer to last during an ordinary tour, and in other phials of similar size, fixers and toners. In a small corner of the bag you can stock away sufficient materials to take you around the world, and you may keep on snapshotting all the way. Some who have not tried them, erroneously think that chemicals compressed into tabloid form cannot be as good as the solutions purchased made up; others fancy that the tabloids are difficult to dissolve. Both are wrong. As a matter of fact, Burroughs Wellcome & Co.'s goods are as fresh when opened as the day when they were turned into tabloids, which

And in
Equatorial
Africa

Convenience
of the new
methods

cannot be said for many powders and made-up bottles on the market ; they are powdered as easily as possible by means of the stirring-rod and are extremely soluble. Four phials of the firm's excellent pyro tabloids lasted me through the South African War, and during a siege I was well provided with chemicals when other men, not so far-seeing, were without them. The new, handsome little case for home or touring use, packed with all tabloids necessary for negative and print, is one of the best things ever placed on the market."

These, among other notes and comments, from distinguished travellers indicate the growing interest this subject is arousing, and it is safe to prophesy that publishers' catalogues of the future will continue to display, in increasing numbers, books of travel illustrated by many photographs, the technical excellence of which will continue to emphasise the reliability of 'Tabloid' Photographic Chemicals under conditions which would render ordinary chemicals useless.



'Tabloid' Photographic Outfit
puts old-fashioned dark-room
equipments in the shade



A FIELD OF BELLADONNA



LOADING BELLADONNA

THE 'WELLCOME'

MATERIA MEDICA FARM

The vital importance of standardisation of drugs has always been recognised by Burroughs Wellcome & Co. Constant attention has been devoted to the subject, and the principle has been applied, not ^{Standardisation} merely to the chemical, but also to the vegetable and animal substances required for the preparation of the firm's products. The old method of picking samples of drugs by their colour and appearance has long been felt to be inadequate, and it has become necessary to view them in the more penetrating light of chemical analysis and of physiological tests.

Even the most experienced pharmacognosist may select drugs which, on the basis of form, colour, and other physical characteristics, appear to possess a high standard of quality, yet, on assay, do not yield the requisite percentage of active principles.

In this connection, a paper by Carr and Reynolds, published in the *Chemist and Druggist*, shows in tabular form the very considerable range of variation in the proportion of active principles existing in samples of drugs bought on the market. Amongst the examples given are the following :—

Drug	Lowest percentage	Highest percentage	Active principle determined
Belladonna (dried herb)	0·23	1·08	Total alkaloids
Broom tops. . . .	0·07	1·06	Sparteine Sulphate
Red Cinchona Bark }	1·06	4·64	{ Quinine and Cinchonidine
Hydrastis Root . .	2·3	5·8	Berberine Sulphate
Ipecacuanha Root (Rio)	0·18	1·83	Emetine

It is obvious that the accuracy and care exercised by the pharmacist in weighing and measuring drugs for use in



'WELLCOME'
CHEMICAL WORKS

FRESH
BELLADONNA
LEAVES

about to be expressed for juice and for making the green extract. It is extremely important that this be done promptly to avoid fermentation and consequent deterioration of the product. The fresh herb is gathered as soon as the sun is up, and expressed and treated before sunset.

'WELLCOME'
MATERIA MEDICA
FARM

CONIUM
MACULATUM

A typical bush of *Conium maculatum* (Hemlock). The fresh leaves and branches are collected when the fruit begins to form.





GATHERING HYOSCYAMUS



DIGITALIS IN FLOWER



ACONITE IN FLOWER



A FIELD OF DATURA METEL

medicine are nullified if the active principles are variable to such an extent.

With the introduction of the ' Wellcome ' Brand standardised galenicals, Burroughs Wellcome & Co. found it necessary, in order to obtain a constant supply of herbs of sufficiently high standard of quality, to grow them under their own immediate supervision. ^{Expert supervision of growth} The benefits of conducting a herb farm in conjunction with the preparation of pharmaceutical products are many. For instance :—

(1) A drug may be treated or worked up immediately it has been collected.

(2) Herbs may be dried, if necessary, directly they are cut, before fermentation and other deteriorative changes have set in.

(3) Freedom from caprice on the part of collectors, who, in gathering wild herbs, are very difficult to control in the matter of adulteration, both accidental and intentional.

(4) The ability to select and cultivate that particular strain of a plant which has been found by chemical and physiological tests to be the most active, and which gives the most satisfactory preparations. Notable instances of these are to be found in connection with *Digitalis* and *Belladonna*.

Fortunately, suitable land was available near the ' Wellcome ' Chemical Works at Dartford, and there the ' Wellcome ' Materia Medica Farm has been established. The following extracts from a ^{The ' Wellcome ' Materia Medica Farm} descriptive article which appeared in the *Chemist and Druggist* of January 29, 1910, will give some idea of the nature and scope of this enterprise :—

“ A suitable piece of land for ‘ a physicke garden ’ [had been chosen] on an undulating slope, with here and there a clump of trees and a strip of wild woodland, between the



HYDRASTIS CANADENSIS

An experimental crop of *Hydrastis*, grown under natural conditions, in a grove shaded by hedges and trees.



GOLDEN SEAL

The same plant under specially-constructed lattice structure, which is designed to ensure the requisite amount of shade.

river and the North Downs, hard by the little village of Darenth. No more ideal spot for a herb farm could have been chosen. It has shade, sunshine, and moisture, and a fine loamy soil, varied by sandier uplands. Here the firm have for the last six years been cultivating medicinal plants under the immediate superintendence of pharmaceutical and botanical experts. The farm was established, firstly, to provide opportunities and materials for research and experiment, and, secondly, to supply the manufacturing departments with medicinal herbs of proper quality.

Research and
experiment

“ A visit to the farm shows that the greater part is devoted to the cultivation of staples ; but a number of plots are used for experimental crops. Among such are meadow saffron (*Colchicum autumnale*), with its pale purple flower. Lavender, peppermint, and French roses grow side by side. Senega and the unpretentious taraxacum, with its bright yellow petals, occupy other spaces. Ginseng, the root that plays so important a part in Chinese medicine, is also grown. Podophyllum peltatum, Scopolia atropoides, Datura meteloides, sea poppy (*Glaucum luteum*), and Grindelia robusta are other plants that one does not usually find growing on a scale greater than the experimental ; but the plots of Hydrastis canadensis are botanically and commercially the most interesting on the farm, in view of the fact that we are coming within measurable distance of the end of the natural supply from North America.

“ The purpose which Burroughs Wellcome & Co. had immediately in view when they established this farm, *i.e.* supplying the products of the field direct to their Works, has been fulfilled, and the farm has, in that respect, passed the experimental stage, since they have experienced the benefits of conducting a farm in conjunction with the production of pharmaceutical preparations. On the research side, experiment goes on, especially in regard to selection and cultivation of strains which have been found by chemical and physiological tests to be the most active.”

THE



'Tabloid' }
AND }
'Soloid' }
Invented
by
B. W. & Co.

Are
B. W. & Co.



They *mark* the work of
Burroughs Wellcome & Co.

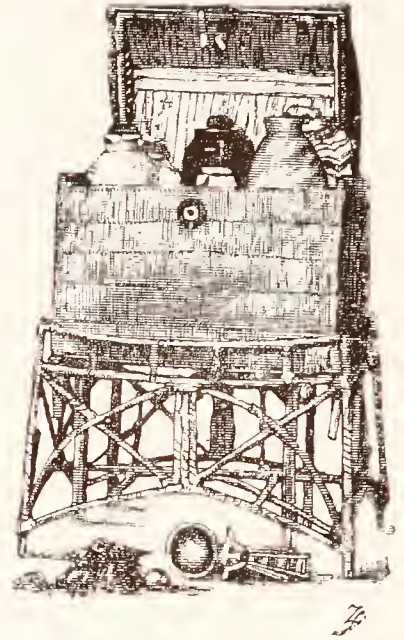
They *mean* " Issued by
Burroughs Wellcome & Co."

They *stand* for



products

HISTORICAL
MEDICAL EQUIPMENTS
USED IN
MILITARY, GEOGRAPHICAL
AND
JOURNALISTIC EXPEDITIONS

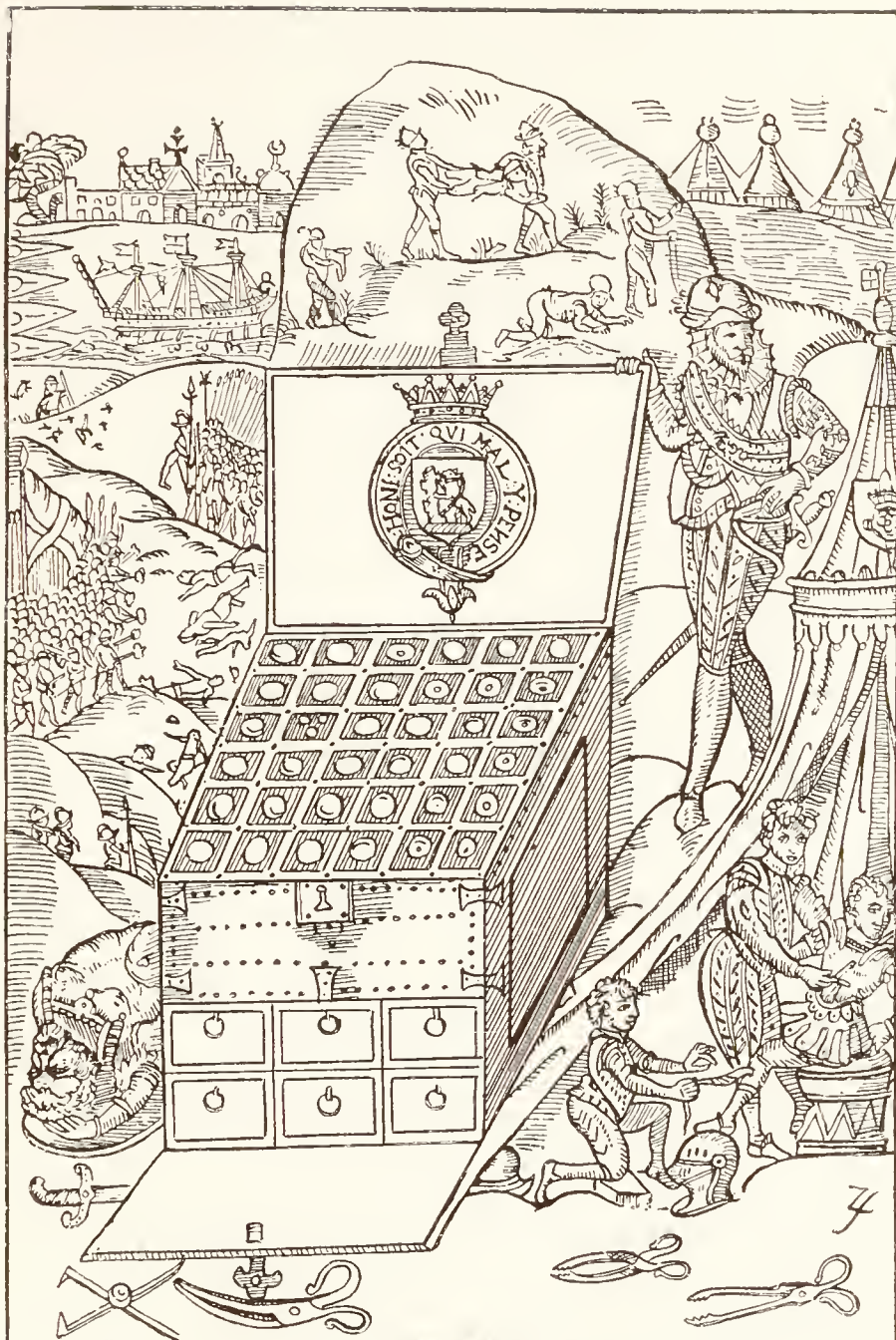


THE MEDICINE CHEST OF
QUEEN MENTU-HOTEP, WHO LIVED 2200 B.C.

The massive outer case for the chest is shown on the left. It is composed of wood, decorated with hieroglyphics, amongst which are the royal cartouche and the figure of a crouching jackal.

The chest itself is depicted on the right. It is composed of plaited papyrus reeds, and is supported on a stand. The chest is divided into six compartments, each containing a beautifully-shaped medicine jar of oriental alabaster. Various medicinal roots, and a wooden spoon, the handle of which is ornamented with the head of Hathor, were discovered in the chest.

This unique Egyptian medical equipment was discovered at Thebes, and demonstrates the huge bulk and cumbersome fittings, combined with paucity of supplies, which have been characteristic of medical outfits from the days of the Pharaohs until the introduction of 'Tabloid' products. The modern medical man armed with a 'Tabloid' Brand Pocket-Case carries a scientific therapeutic equipment, the equivalent of which, in the drugs of antient Egypt, could be transported only by a regiment of slaves.



MILITARY MEDICINE CHEST—1588

Fabricius, a noted Swiss physician of the XVI century, recommended that the military chest should be furnished with no less than 362 varieties of medicine, some of which contained as many as 64 ingredients. The complexity of arrangement, the huge bulk and great weight, the liability to breakage, and the complicated inconvenience of medicine chests persisted until the introduction of 'Tabloid' Medical Equipments.



THE SMALLEST MEDICINE CHEST IN THE WORLD

This tiny gold medicine chest is fitted with twelve square medicine chest bottles containing 300 doses of 'Tabloid' Brand Medicaments, equivalent to 15 pints of fluid medicine.

HISTORICAL MEDICAL EQUIPMENTS

FOR MILITARY, GEOGRAPHICAL AND JOURNALISTIC EXPEDITIONS

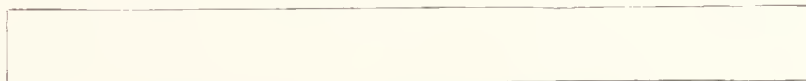
THE Medical Equipments of the present day differ notably from those of olden times in two distinct directions—diminished bulk, and in purity and efficacy of content. This improvement has only been effected in the last quarter-century and mainly by B. W. & Co.; before that time, campaigning medicine chests had to be either of enormous and unwieldy size, or, if small, they could contain only the most meagre supplies.

In the Middle Ages, owing to the great variety and bulky nature of the remedial agents used, the medicine chests employed in military campaigns assumed enormous proportions, and it was not until the middle of the nineteenth century that progress was made towards reducing the bulk of campaigning medical outfits.

Bulky yet
inadequate
equipments



Size of one product of 'TABLOID'
Cinchona Tincture, min. 30



Length of 30 min. tube of Liquid Tincture,
same diameter as 'TABLOID' product

Early explorers, particularly in Africa, found the difficulties of procuring suitable portable medical supplies practically insuperable, and the horrors of disease and death associated with their expeditions were almost beyond description.

“When I think [said the late Sir H. M. STANLEY, in the course of one of his lectures] of the dreadful mortality of Capt. TUCKEY'S Expedition in 1816, of the NIGER Expedition in 1841, of the sufferings of BURTON and SPEKE, and of my own first two expeditions, I am amazed to find that much of the mortality and sickness was due to the crude way in which medicines were supplied to travellers. The very recollection causes me to shudder.”

A famous
Journalist
on early
expeditions.
Mortality
due to crude
medicines

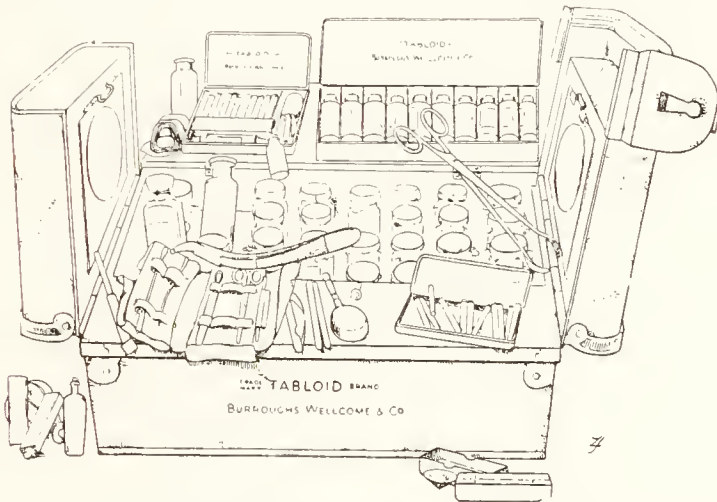


'TABLOID' MEDICAL EQUIPMENTS IN CENTRAL AFRICA

That a very marked change has taken place can be gathered from a more recent speech of this eminent explorer and journalist, in which he said :—

In my early expeditions into Africa, there was one secret wish which endured with me always, and that was to ameliorate the miseries of African explorers. How it was to be done I knew not ; who was to do it, I did not know. But I made the acquaintance of Messrs. BURROUGHS WELLCOME & Co. As soon as I came in sight of their preparations and their works, I found the consummation of my secret wish. On my later expeditions I had all the medicines that were required for my black men, as well as my white men, beautifully prepared, and in most elegant fashion arranged in the smallest medicine chest it was ever my lot to carry into Africa.

B. W. & Co
solved the
problem



One of the 'TABLOID' BRAND MEDICINE CHESTS carried by the late Sir H. M. STANLEY through "Darkest Africa," and brought back, after three years' journey, with the remaining contents unimpaired.

In his books, *Founding the Congo Free State* and *In Darkest Africa*, the late Sir H. M. STANLEY wrote in the very highest terms of 'Tabloid' Medical Equipments.

Amongst other cases used during STANLEY'S travels is the famous "Rear-Guard" 'Tabloid' Medicine Chest, which remained in the swampy forest regions of the Aruwhimi for nearly four years, and more than once was actually submerged in the river. When it was brought back to London, the remaining contents were tested by the official analyst of the *Lancet* (London, Eng.), who reported that the 'Tabloid' medicaments had perfectly preserved their efficacy.

Tested by
the
"Lancet"



'TABLOID' MEDICAL EQUIPMENTS IN MOROCCO

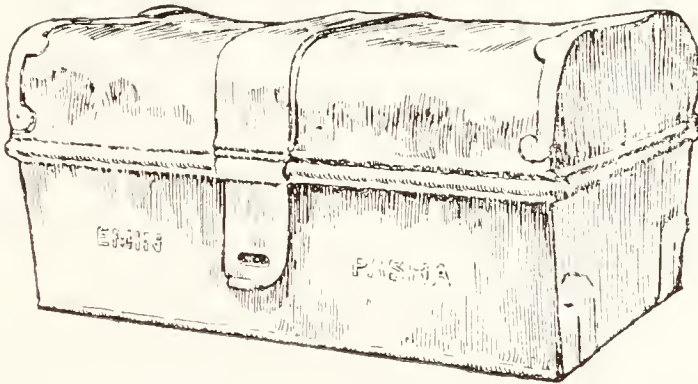
The late Surgeon-Major PARKE, Stanley's Medical Officer, in his *Guide to Health in Africa*, writes :—

The medicinal preparations which I have throughout recommended are those of BURROUGHS WELLCOME & Co., as I have found, after a varied experience of the different forms in which drugs are prepared for foreign use, that there are none which can compare with them ['Tabloid' products] for convenience of portability in transit, and for unfailing reliability in strength of doses after prolonged exposure.

Reliability,
portability
and convenience

At this point it is of interest to turn to the 'Tabloid' Medicine Chest, here illustrated, which was discovered near Kenia, in the Aruwimi Dwarf Country. It was the last chest supplied to EMIN PASHA, GORDON'S Governor of the Equatorial Soudan. This chest was taken by Arabs when EMIN PASHA was massacred in 1892, and was recaptured by BARON DHANIS, Commandant of the Congo Free State troops, after the battle of Kasongo.

Emin Pasha



EMIN PASHA'S 'TABLOID' BRAND MEDICINE CHEST

It was subsequently stolen by natives, and finally recovered by an officer of the Congo Free State, and returned to BURROUGHS WELLCOME & Co.

The following is a copy of EMIN PASHA'S letter written to BURROUGHS WELLCOME & Co. on receiving the chest :—

Gentlemen,—I found the medicine chest you forwarded me fully stocked. I need not tell you that its very completeness made bound my heart. Articles like those could not be made but at the hand of the greatest artists in their own department. If any one relieved from intense pain pours out his blessings, they will come home to you.



'TABLOID' MEDICAL EQUIPMENTS IN EGYPT

I should like to expatiate somewhat longer on the intrinsic value, but sickness preventing me to do so. I wish you to believe me,

Yours very faithfully

Dr Emin Postea

Another case associated with Stanley is the raw-hide 'Tabloid' Medicine Case used by Thomas Stevens, the well-known journalist who travelled round the globe on a bicycle, and was the hero of other pioneer exploits in different parts of the world. Stevens was the first to greet the great explorer on his return to civilisation, and during his twelve months' journeyings in Masailand and German East Africa was greatly

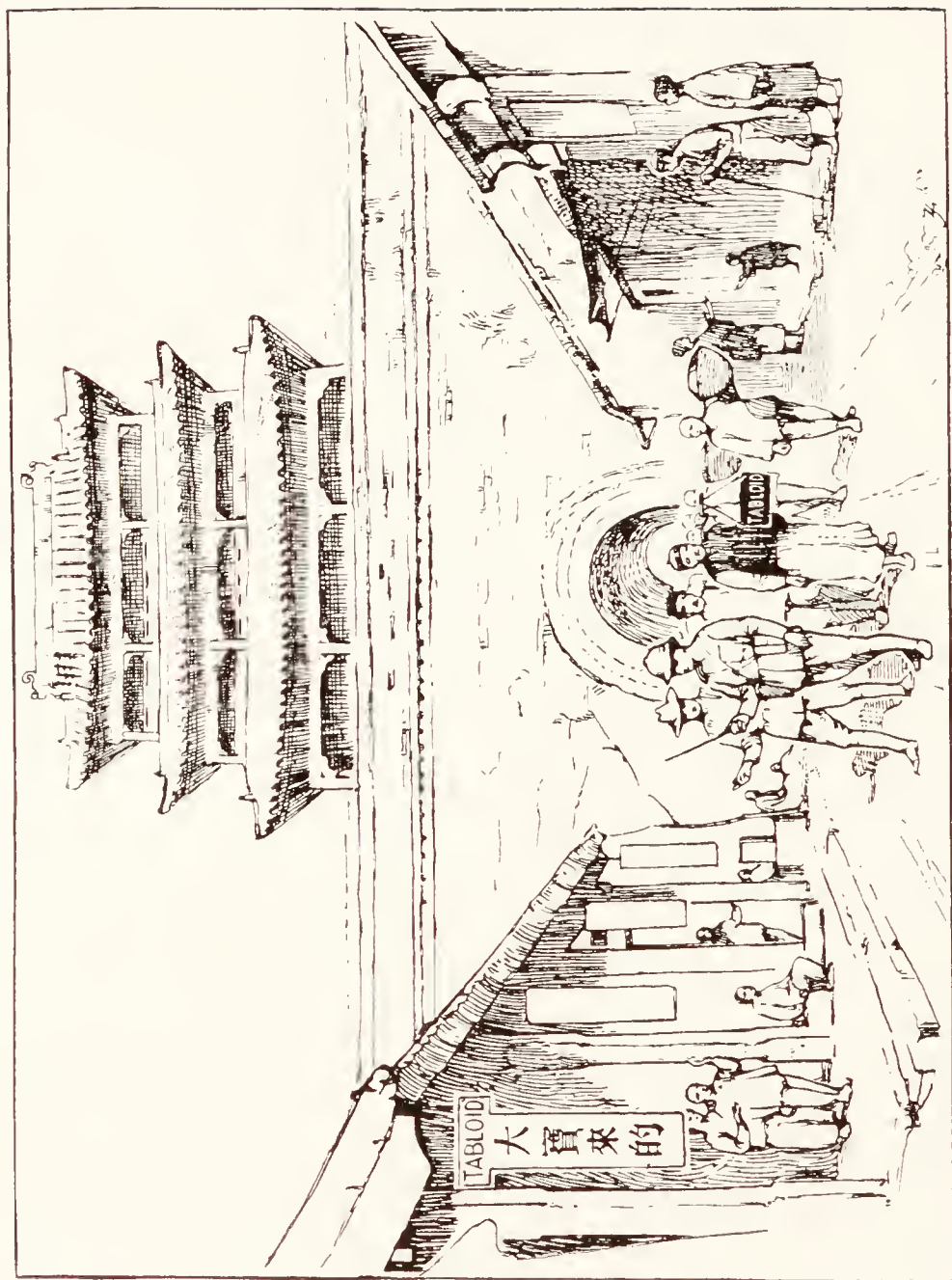
Thos.
Stevens'
'Tabloid'
Medicine
Case



THOMAS STEVENS' 'TABLOID' BRAND MEDICINE CASE

impressed with the portability and compactness of his medical outfit, and with the efficacy of its contents. In his book, *Scouting for Stanley in East Africa*, he wrote: "Stanley, in recommending these Medicines ['Tabloid' products], has earned the gratitude of every man who goes to a tropical country."

A history of all the 'Tabloid' equipments associated with African exploration would, of itself, make a large volume, and it is only possible to make brief mention of a few other instances of their use.



'TABLOID' MEDICAL EQUIPMENTS IN CHINA

That 'TABLOID' EQUIPMENTS excel for military purposes has been abundantly demonstrated during various British and foreign military campaigns. The following is an extract from the **Official Government Report** made by the Chief Medical Officer of the last **BRITISH MILITARY EXPEDITION to ASHANTI** on the 'Tabloid' Brand Medical Equipment which was supplied by **BURROUGHS WELLCOME & Co. :—**

Military
expeditions

The supply of medicines, both as to quality and quantity, left nothing to be desired. There was no scarcity of anything. The 'Tabloid' medicines were found to be most convenient and of excellent quality. To be able to take out at once the required dose of any medicine, without having to weigh or measure it, is a convenience that cannot be expressed in words. to an extent that can hardly be realised, and so is space, for a fitted dispensary, or even a dispensary table, is unnecessary. The quality of medicines was so good that no other should be taken into the field. The cases supplied are almost ideal ones for the Government. They are light, yet strong, and the arrangement of the materials and medicines is as nearly perfect as possible.

No delay to
weigh or
measure
Time is saved

Quality so
good, no other
should be
taken into
the field

It is instructive to compare the experience of this Expedition with that of the **WOLSELEY ASHANTI EXPEDITION** of 1873, fitted out according to old-time methods. The suffering and loss of life were then terrible, for want of suitable medical equipments.

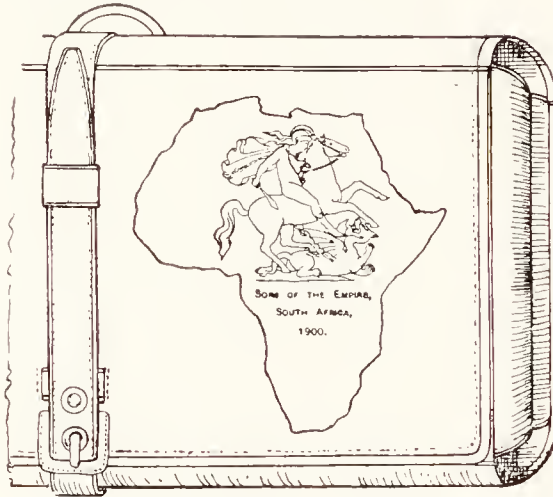
Without exception, 'Tabloid' Medical Equipments have been used in all the campaigns of the last twenty-five years, and have played an important part in combating the diseases which seem inseparable from an army in the field.

During the American war with Spain, in Cuba and the Philippines, 'Tabloid' Medical Equipments were specially ordered for, and used by, the U.S. Army and Navy.

The Expedition which, under the command of **LORD KITCHENER**, defeated the Khalifa and reconquered the Soudan was supplied with 'Tabloid' Medical Equipments.

An illustration of one of the 'Tabloid' Medical Equipments specially designed for, and supplied to, the British

Colonial Forces for use in the South African Campaign is here shown. Similar cases were designed for, and supplied to, the CITY OF LONDON IMPERIAL VOLUNTEERS and IMPERIAL YEOMANRY.



One of the 'TABLOID BRAND MEDICINE CASES' specially designed for, and supplied to, the troops from the various British Colonies for use in the South African Campaign.

The equipment of the American Hospital Ship *Maine*, and the valuable services it rendered in connection with the campaigns in South Africa and in China, are so recent as to be within the memory of all. The whole of the medical outfit was supplied by BURROUGHS WELLCOME & Co.

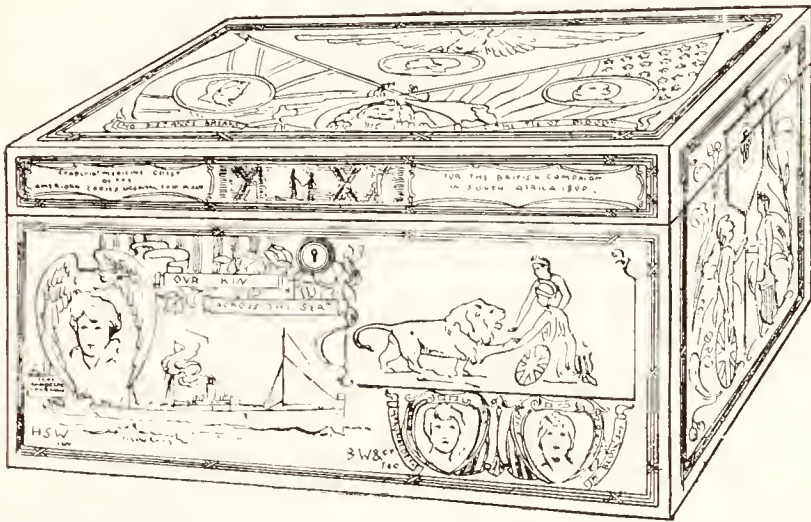
Referring to this equipment, the *Lancet* (London, Eng.) reported :—

The whole of the medical outfit has been supplied by Messrs. Burroughs Wellcome & Co. One of the medicine chests supplied by this firm is in tooled leather, designed by Mr. Henry S. Wellcome.

The following description of this chest may be of interest :—

The chest is made of oak covered with Carthaginian cowhide, tooled by hand, with chaste designs successfully representing in allegory the alliance of Great Britain and America in the succour of the wounded. On the top panel appear the Union Jack and the Stars and Stripes entwined, portraits of Queen Victoria, George Washington and President McKinley, also representations of the British Lion and American Eagle.

The front panel bears portraits of Lady Randolph Churchill (Mrs. George Cornwallis-West), the hon. secretary and the hon. treasurer of the fund ; a picture of the ship itself ; a scene representing the British Lion, wounded by an arrow which lies at his side, being ministered to by Britannia and Columbia. A frieze is formed by a representation of an American Indian wampum, upon which Brother Jonathan and John Bull are depicted hand-in-hand. The panel at each end of the chest represents Britannia and Columbia supporting a banner



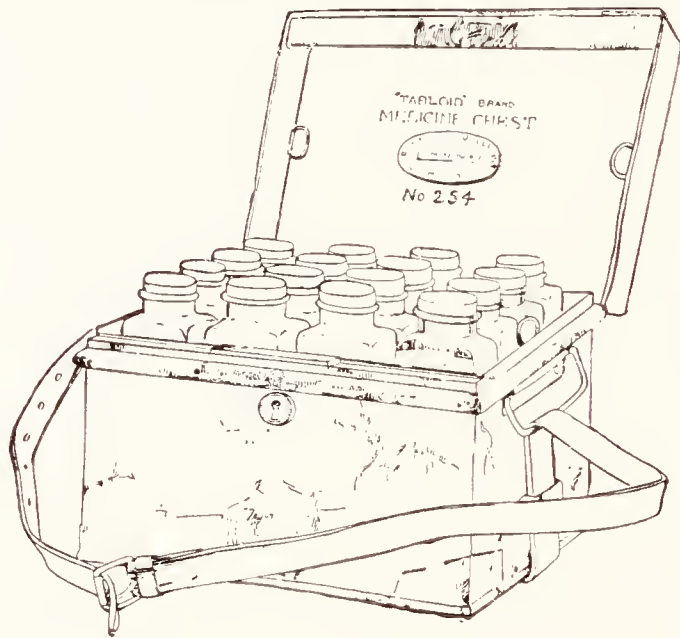
One of the 'TABLOID' BRAND MEDICINE CHESTS specially designed for, and supplied to, the Hospital Ship *Maine*.

bearing the Red Cross, and on the panel at the back the British Regular and Colonial Lancers are shown charging a Boer force. Keble's line, "No distance breaks the tie of blood," and Bayard's phrase, "Our kin across the sea," are inscribed on the chest. This beautiful cabinet contains a number of smaller cases fitted with 'Tabloid' and 'Soloid' Brand products and 'Tabloid' Hypodermic outfits, and is in itself a compact and complete dispensary.

In addition to their adoption by military and naval authorities, 'Tabloid' Medical Equipments have been used by the War Correspondents who have accompanied all modern expeditions.

The conclusive proofs afforded by all these campaigns and expeditions of the incomparable utility of the B. W. & Co. equipments, under circumstances of the most trying nature, naturally led to their still more extensive employment during the war in South Africa. The trying conditions of transport and the climatic influences were just such as 'Tabloid' Equipments, and 'Tabloid' Equipments only, had been proved, by earlier experience, to be capable of resisting. Constant references were made to the adequacy and efficiency of the equipments supplied.

A WAR CORRESPONDENT'S EQUIPMENT



The late G. W. STEEVENS' 'TABLOID' BRAND MEDICINE CHEST

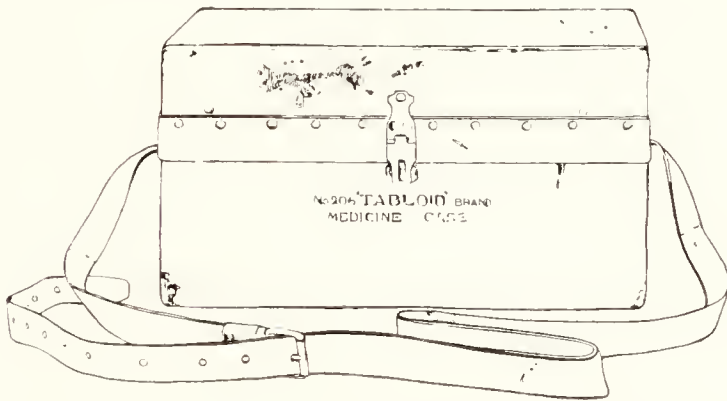
An equipment of the greatest personal interest is the chest here illustrated. It was formerly the property of the late G. W. Steevens, and used by him throughout the G. W. Steevens war in Greece, the two Soudan campaigns, and his journey in India. In the South African War the same chest did good service until this brilliant writer's life was brought to a premature end during the siege of Ladysmith.

THE RECORDS OF ASIA

Turning to the great Asiatic continent, although the story of exploration and adventure is not so continuous as in Africa, yet, wherever the modern British explorer has been, it is found that he has, almost without exception, carried a 'Tabloid' medical equipment.

The raw-hide 'Tabloid' Medicine Case carried by Julius Price, the special artist and correspondent of the *Illustrated London News*, for some 33,000 miles through Arctic regions, across Siberia, through China and Japan, and across America, is here illustrated. In spite of its subjection to the severe wear and tear of this great journey, the case suffered little, and its 'Tabloid' contents did not become impaired.

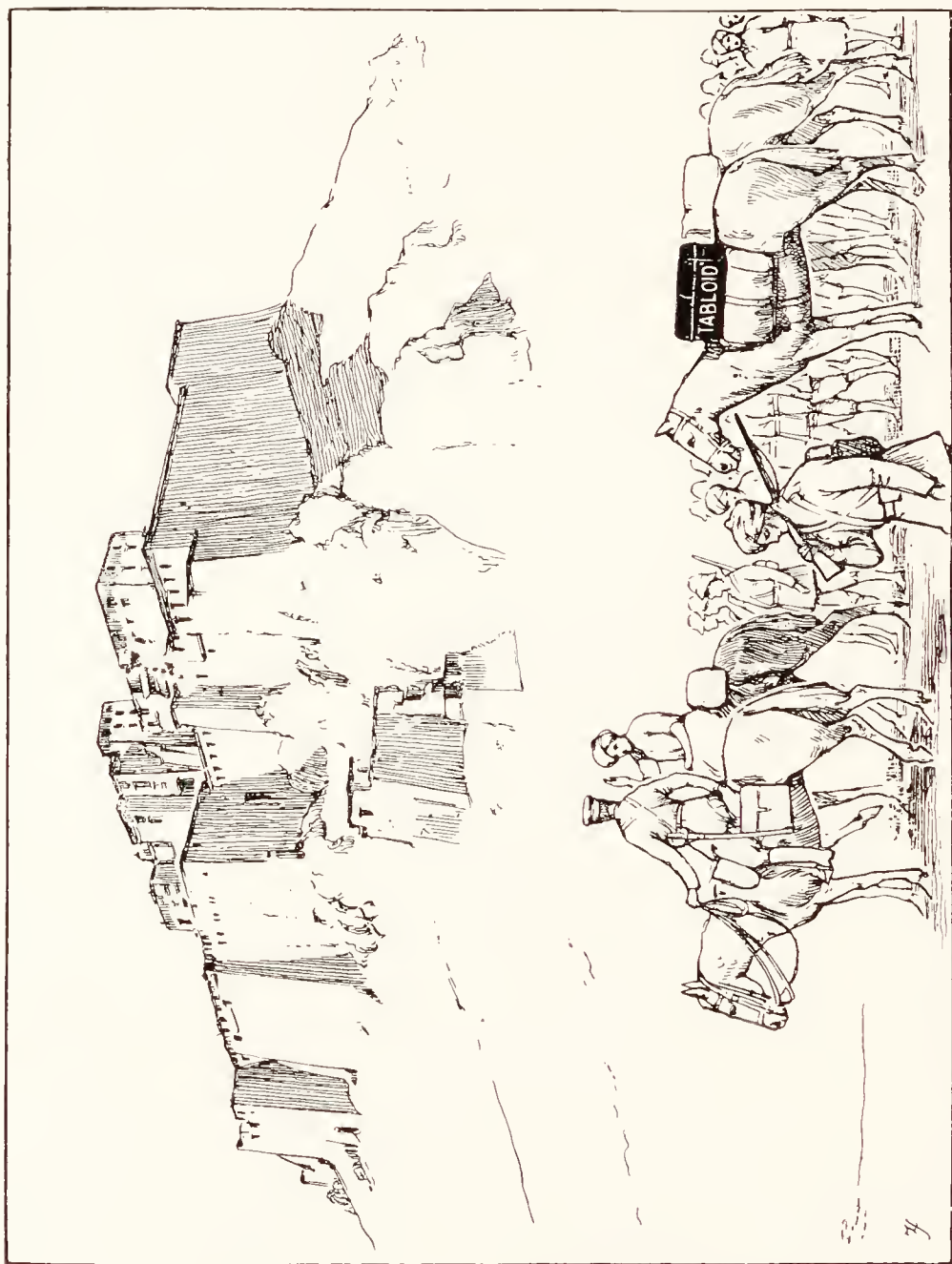
Julius Price



JULIUS PRICE'S 'TABLOID' BRAND MEDICINE CASE

Another interesting 'Tabloid' Medicine Case is that which belonged to Dr. Henry Burland, who reported that it was used during a year's journey through Cashmere, Tibet, the high ranges of the Himalayas, etc., and encountered a vast amount of rough usage by transport on the backs of coolies, elephants, camels, bullocks, etc. Intense cold in high altitudes on the Himalayas, as well as the heat and moisture of Indian monsoon weather in the lowlands, equally failed to affect its contents adversely.

Dr. Henry
Burland



'TABLOID' MEDICAL EQUIPMENTS IN TIBET

Sir Sven Hedin, whose recent remarkable achievement in the exploration of Central Asia, when he set foot in one of the sacred forbidden cities of Tibet, is well known, took with him on his journey across the Himalayas a 'Tabloid' Medicine Chest, and in his fascinating book, "Trans-Himalaya," he speaks in the highest terms of the utility and completeness of the equipment.

To this enterprising explorer his 'Tabloid' Medicine Chest was of great use, not only in providing medical treatment for his followers and himself on their long and perilous march, but also in his diplomatic relations with the great Tashi-Lama.

We are indebted to the courtesy of his publishers, Messrs. Macmillan, for permission to quote the following interesting description by Sir Sven Hedin of the presentation of his 'Tabloid' Medicine Chest as an offering of friendship, in accordance with Oriental custom, to the venerated chief of the Buddhist religious community at Tashi-Lunpo :—

" ' Bombo Chimbo ' [the name by which Dr. Sven Hedin was known], we know that you are a friend of the Tashi-Lama, and we are at your service."

.

" When we had conversed for two hours I made a move to leave him, but the Tashi-Lama pushed me back on to the chair and said, ' No, stay a little longer.' Now was the time to present my offering. The elegant English medicine chest was taken out of its silk cloth, opened and exhibited, and excited his great admiration and lively interest ; everything must be explained to him. The hypodermic syringe in its tasteful case, with all its belongings, especially delighted him. Two monks of the medical faculty were sent for several days running to write down in Tibetan the contents of the various ' Tabloid ' boxes and the use of the medicines."



NORTH POLE



SOUTH POLE

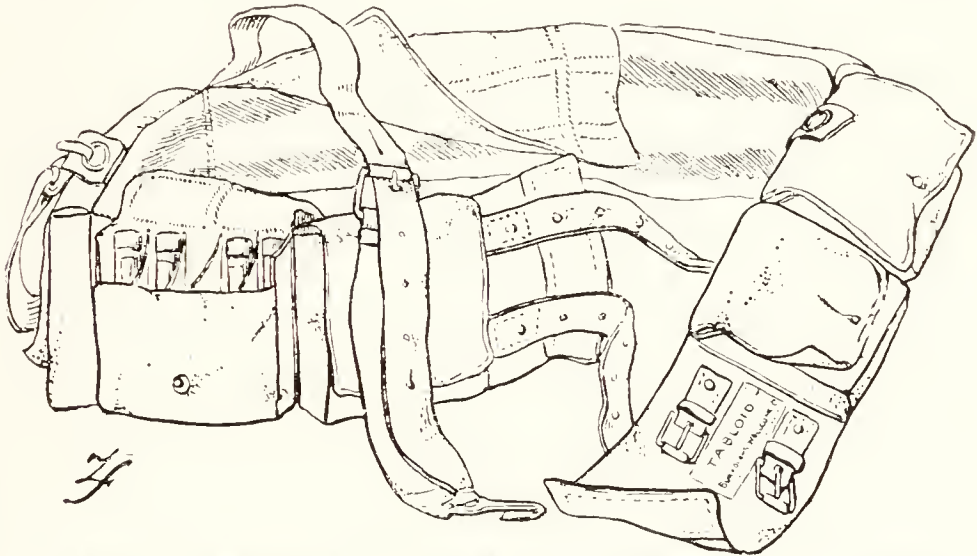
'TABLOID' MEDICAL AND FIRST-AID EQUIPMENTS
have reached the North Pole, and as near to the South Pole as
man has gone.

IN ARCTIC AND ANTARCTIC EXPLORATION

In the endeavours to reach the Poles, and in the exploration of Arctic and Antarctic lands, 'Tabloid' Medicine Chests have taken a pioneer position, and continue to hold supremacy.

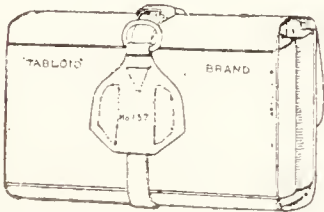
The 'Tabloid' Belts and other Medical Equipments supplied to NANSEN for his journey in the *Fram*, and those used by the JACKSON-HARMSWORTH ARCTIC EXPEDITION, have been added to the historic collection of BURROUGHS WELLCOME & Co.

A famous
journalistic
enterprise



One of the 'TABLOID' BRAND MEDICINE BELTS carried by NANSEN on his Arctic Expedition.

The ITALIAN ARCTIC EXPEDITION, commanded by the DUKE OF THE ABRUZZI, found that, despite the fact that the northern latitude of $86^{\circ} 33' 49''$ was reached, the 'Tabloid'



One of the 'TABLOID' BRAND MEDICINE CASES carried by the DUKE OF THE ABRUZZI'S Polar Expedition.

Medicine Chests and Cases with which the Expedition was equipped were brought back with their remaining contents quite unaffected by the rigour of the climate.

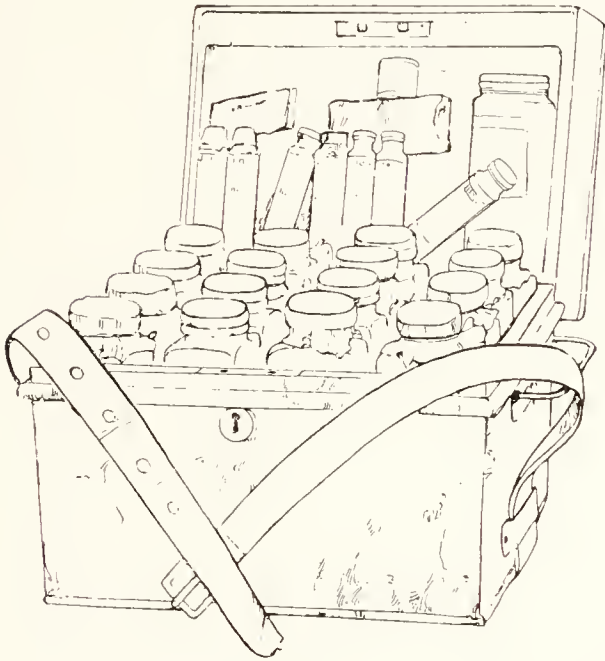


'TABLOID' MEDICAL EQUIPMENTS

IN ALPINE AND ANTARCTIC EXPLORATION

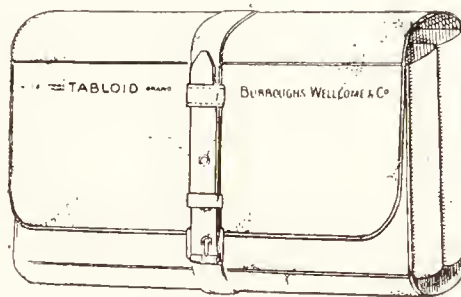
COMMANDER PEARY, to whose record stands the achievement of reaching the North Pole, writing from Etah, Greenland, reported :—

Burroughs Wellcome & Co. 'Tabloid' Medicine Cases and supplies have proven invaluable.



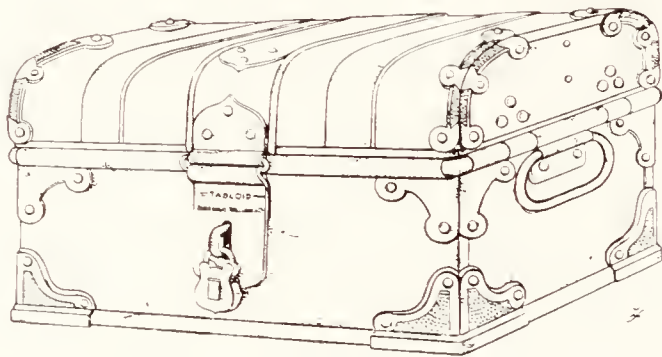
One of the 'TABLOID'
BRAND MEDICINE CHESTS
used by COMMANDER
R. E. PEARY

The entire medical outfit of the National Antarctic Expedition was furnished by Burroughs Wellcome & Co., and on the return of the *Discovery*, with the members of the Expedition on board, the medical officer made a highly satisfactory report on the 'Tabloid' Medical Equipment.



One of the 'TABLOID' BRAND MEDICINE CASES carried by the National Antarctic Expedition.

In August, 1901, the *Discovery* left England, and, in the following January, crossed the limit of the Antarctic Circle. Having passed the farthest eastward point attained by Ross sixty years before, the explorers discovered a new land, which they named King Edward VII Land. One of the most noteworthy features of the Expedition was the arduous sledge



No. 251 One of the 'TABLOID' MEDICINE CASES carried by the National Antarctic Expedition.

journey undertaken by the commander, Captain SCOTT, accompanied by Lieutenant SHACKLETON and Dr. WILSON. This journey over the ice occupied three months, and the latitude of $82^{\circ} 17'$ South was reached.

On sledge journeys the question of weight is of great moment. The traveller on such occasions must carry but the barest necessities, and of these the lightest procurable. The medicine chest is an important item, for upon the efficacy of its contents the lives of the explorers may depend. Every drug carried must be of the utmost reliability, in the most compact state, and capable of withstanding an extremely low temperature.

That 'Tabloid' Medical Equipments fulfil all requirements has been proved again and again. They enable the traveller to carry a comparatively large supply of medicines, and may be used under conditions which would render the carriage and administration of ordinary preparations impossible.

Reliability
essential

To the enthusiasm of Sir CLEMENTS MARKHAM, K.C.B., then President of the Royal Geographical Society, the successful organisation of the National Antarctic Expedition was largely due. Referring to the 'Tabloid' Medical Equipment of the *Discovery*, he reports :—

National Antarctic Expedition,

1, Savile Row.

Burlington Gardens, W

The Medical Equipment of the Exploring Ship of the National Antarctic Expedition was entirely supplied by Messrs Burroughs, Wellcome & Co., and, proved in every way most satisfactory.

The few other drugs and preparations which were taken with the Expedition were only supplied for purposes of experiment, and, can in no way be regarded as part of the medical equipment.

Clements Markham

27. April 1905.

DR. KÆTTLITZ, the Senior Medical Officer to the Expedition, reports :—

Discovery ANTARCTIC EXPEDITION

The Medical Equipment of the *Discovery* Exploring Ship, of the National Antarctic Expedition, was entirely supplied by Messrs. Burroughs Wellcome & Co., mostly in the form of 'Tabloid,' 'Soloid' and 'Enule' preparations.

The preparations proved in every way most satisfactory, and there was no deterioration of any of them, in spite of the conditions of climate and temperature to which they were exposed. The few other drugs and preparations which were taken with the Expedition were only taken for purposes of experiment.

The cases supplied by Burroughs Wellcome & Co. to us have also been found satisfactory; the small leather one was very useful upon sledge journeys, being light and compact. The No. 251 'Tabloid' Case was used for some weeks at the camp eleven miles north of the ship, when the whole ship's company was engaged in sawing and blasting the ice, and it was found very convenient.

The other cases were useful in our cabins, etc., for a handy supply.

Reynald Kættlitz

BRITISH ANTARCTIC EXPEDITION, 1907-9

Sir Ernest H. Shackleton on his memorable voyage with the *Nimrod*, when he penetrated to within ninety-seven miles of the South Pole, took with him as his sole medical equipment 'Tabloid' medicine chests and cases, and the subjoined reports show that under the trying and difficult conditions of Antarctic exploration 'Tabloid' medicines maintained their reputation for efficiency and stability.

BRITISH ANTARCTIC EXPEDITION, 1907-9

Copy of Report dated Sept. 17, 1909 :—

The British Antarctic Expedition, 1907-9, was equipped with a very complete Medical Equipment contracted for solely by Messrs. Burroughs Wellcome & Co. and consisting of 'Soloid' and 'Tabloid' Preparations, which are the only forms that can be conveniently carried and preserved under such conditions.

The packets of Compressed Dressings are an extremely convenient form.

The Congo Cases (No. 251, 'Tabloid' Brand) were always used when at our base, and both the party of three who reached the South Magnetic Pole, and the party under Lieut. Shackleton, who attained a point 97 miles from the Geographical South Pole, carried a brown leather 'Tabloid' Case, and all the 'Tabloid' products that remain are now in as good condition as when first handed over to my care two years ago.

The *Nimrod* was also supplied with 'Tabloid' Cases and Equipment.

The 'Tabloid' Photographic Outfit supplied by Burroughs Wellcome & Co. proved entirely satisfactory.

Signed

BRITISH ANTARCTIC EXPEDITION, 1907-9

ERNEST H. SHACKLETON

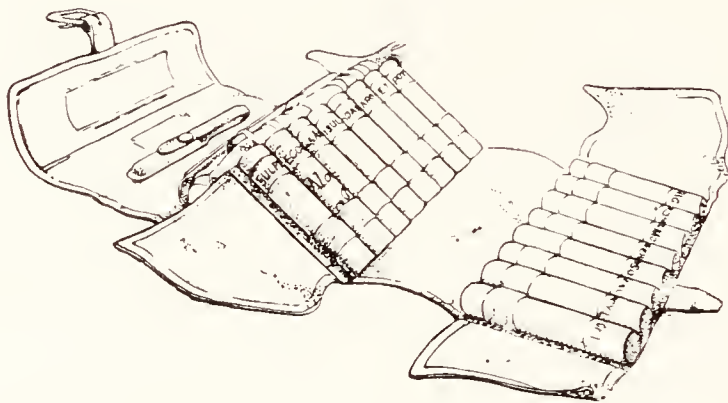
Commander

ERIC P. MARSHALL

M.R.C.S., L.R.C.P.

Surgeon to the Expedition

THE 'TABLOID' MEDICINE CASE CARRIED "FARTHEST SOUTH" BY SIR ERNEST H. SHACKLETON



The full record of this Case, as given in the report from the Surgeon to the Expedition, is printed below.

Copy of Report dated Sept. 17, 1909:—

The B. W. & Co. Brown Leather 'Tabloid' Case herewith was :

Taken with party of six that made the ascent and reached summit of Mount Erebus, 13,350 ft., March 5-11, 1908.

Used on Southern Journey under Lieut. Shackleton

*October 28, 1908—March 4, 1909.

Latitude 88° 23' S. Longitude 162° E.

Distance covered in this journey, 1728 statute miles.

Used on S. Depot Laying Party, from September 20 to October 15, 1908.
Distance covered, 311 miles.

Taken on Depot journeys to Hut Point.
Aggregating 150 statute miles.

Medicines quite satisfactory.

Signed

E. P. MARSHALL, M.R.C.S., L.R.C.P.

*Surgeon to the British Antarctic
Expedition, 1907-9*

* Reached "Farthest South," Jan. 9, 1909

Two other typical reports on 'Tabloid' Equipments are appended :—

Extract from the report of R. F. RAND, Esq., M.D., F.R.C.S., Principal Medical Officer, British South Africa Company :—

We have had Burroughs Wellcome & Co.'s "Congo" Chests, fitted with 'Tabloid' medicines, in daily use during the occupation of this country. They have proved of inestimable service.

Extract from the report of the late W. H. CROSSE, M.D., M.R.C.S., Principal Medical Officer, British Royal Niger Company :—

All these 'Tabloid' drugs are so good it is impossible for me to speak more highly of one than another. They are all of the very best quality, each drug is accurately described, and reliable. To the traveller these preparations are simply invaluable, and I would strongly advise every one coming out to the Tropics to get a full supply of 'Tabloid' medicines.

BURROUGHS WELLCOME & Co. have for many years made a special study of the requirements of travellers and expeditions, not only in respect of compactness, portability and permanence, but also in the selection of remedies necessary to combat the maladies prevalent in every clime, from the Arctic to the Antarctic.

Study of
medicines
suitable
for every
climate

'Tabloid' Brand Medicine Cases contain, in a small space, a complete outfit of pure drugs in doses of extreme accuracy. They can be carried in the pocket, in the carriage or motor-car, or on the cycle, their contents being always ready for use in emergencies. They are specially valuable to the country practitioner, who is often called upon to cover long distances, and who would experience great difficulty in carrying or obtaining supplies of such medicines as he may desire to administer promptly, were it not for the convenience and portability of 'Tabloid' Brand Medicine Cases.

Emergency
Cases for
pocket,
cycle,
motor or
carriage

AWARDS CONFERRED UPON
BURROUGHS WELLCOME & CO.

INTERNATIONAL
EXPOSITION
ST. LOUIS, 1904

THREE GRAND PRIZES
AND
THREE GOLD MEDALS



INTERNATIONAL
EXPOSITION
LONDON, 1905

SIX GRAND PRIZES
THREE DIPLOMAS OF HONOUR
AND
THREE GOLD MEDALS



INTERNATIONAL
EXPOSITION
MILAN, 1906

THREE GRAND PRIZES
THREE DIPLOMAS OF HONOUR
AND
ONE GOLD MEDAL



FRANCO-BRITISH
EXPOSITION
LONDON, 1905

SEVEN GRAND PRIZES
ONE DIPLOMA OF HONOUR
AND
TWO GOLD MEDALS

MAKING IN ALL MORE THAN
220 HIGHEST AWARDS
CONFERRED UPON THE FIRM FOR THE
SCIENTIFIC EXCELLENCE OF THEIR PRODUCTS
AT THE
GREAT EXHIBITIONS OF THE WORLD

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MAP OF MODERN LONDON

The Map of London which follows is, for convenience in reference, divided into four sections. A Key is printed on *page* 190.

Section No. 1 comprises the North-Western quarter of London, and includes the West End.

Section No. 2 comprises the North and North-Eastern Suburbs, the West Central Postal District, the City and the East End of London, North of the Thames.

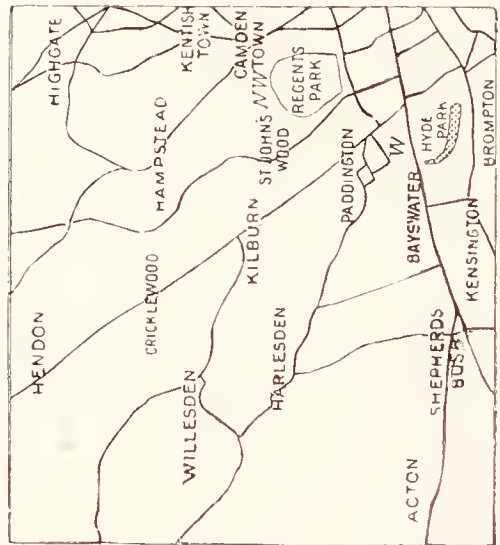
Section No. 3 comprises the South-Western District and the South-Western Suburbs.

Section No. 4 comprises the South-Eastern District and the South-Eastern Suburbs.

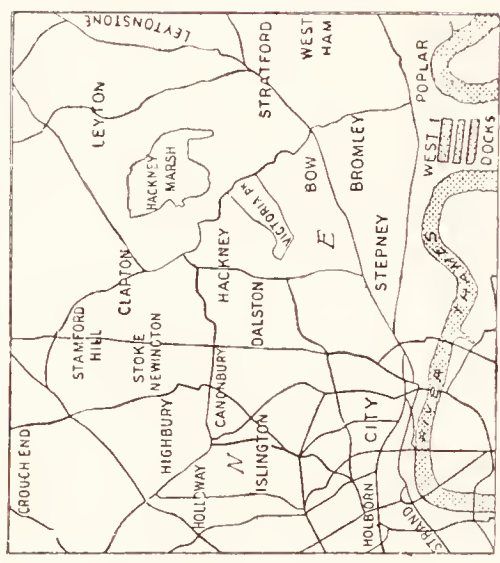
The main thoroughfares are coloured	-	-	Yellow
The Parks and open spaces	„	-	Green
The Railways	„	-	Red

(For Map of Tubes, see end)

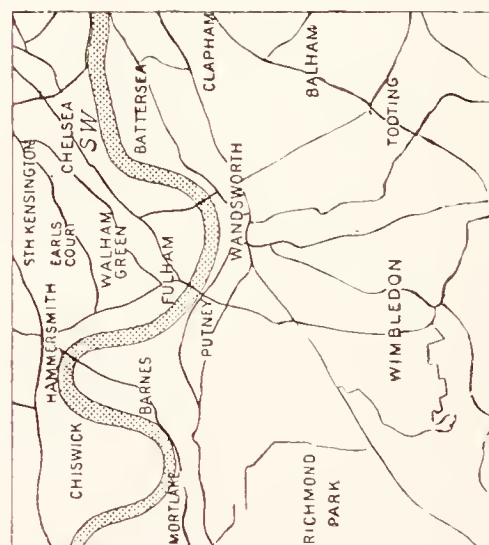
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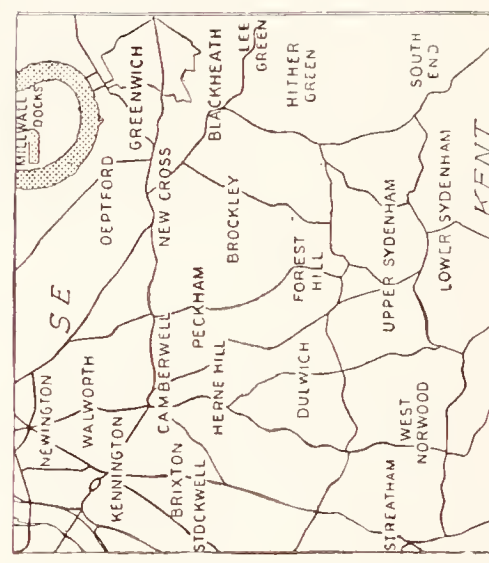
No. 2



No. 3



No. 4



See also
notes
on
previous
page

KEY-PLAN
TO
MAPS OF
LONDON









Scale 0 1/4 1/2 3/4 1 Miles.

Divided into half mile squares.

G. W. Bacon & Co. Ltd 127 Strand, London.

LIST OF LONDON TUBES

(See Map overleaf)

Bakerloo Tube. — From Edgware Road, through Baker Street to Piccadilly, Charing Cross and Waterloo to Elephant and Castle.

Central London Railway.—From the Bank, through Holborn and Oxford Street to Shepherd's Bush.

City and South London Railway.—From St. Pancras, through King's Cross, Moorgate Street and the Bank to Kennington and Clapham.

District Railway. — From Whitechapel, through Mansion House, Charing Cross, Westminster and Victoria to Kew, Richmond, Hammersmith and Wimbledon.

Great Northern and City Tube. — From Finsbury Park to the City.

Hampstead Tube. — From Hampstead or Highgate, through Euston to Oxford Street, Leicester Square and Charing Cross.

Metropolitan Railway.—From Aldgate and the City, through King's Cross to Paddington, South Kensington and Shepherd's Bush.

Piccadilly Tube. — From Finsbury Park, through King's Cross to Holborn, the Strand and the West End.

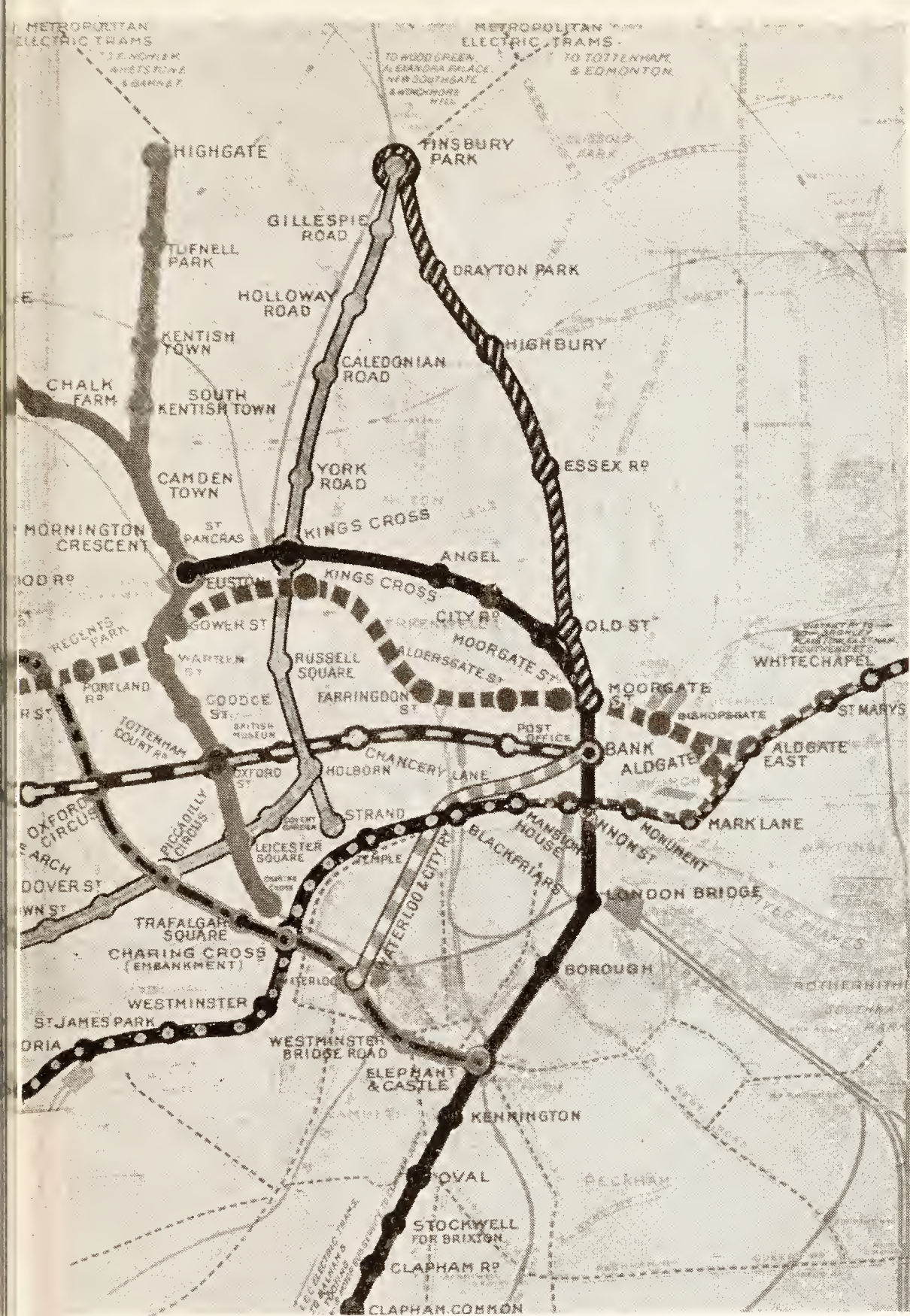
Waterloo and City Railway. — From the Bank to Waterloo Station.

REFERENCE

BAKERLOO TUBE.	Shown Thus	
CENTRAL LONDON RY.		
CITY & SOUTH LONDON RY.		
DISTRICT RAILWAY.		
GREAT NORTHERN & CITY TUBE.		
HAMPSTEAD TUBE.		
METROPOLITAN RY.		
PICCADILLY TUBE		
WATERLOO & CITY RY.		
LONDON UNITED TRAMS.		
OTHER TRAMWAYS.		
SUBWAY CONNECTIONS.		
OTHER RAILWAYS.		



PLAN OF LONDON TUBE



UNDERGROUND RAILWAYS

